

If There Was a Hoss

That Cost Nothing for Keep,
That Cost Nothing for Harness,
That Cost Nothing for Shoeing,
That Cost Nothing for Doctor-
ing,

That Never Grew Old,

Would You Buy the Nag?

(Yes, William Henry, or an
Automobile.)

Well, then, you are just the
fellow to

Hook 'er to the Biler

For this is just exactly what
we guarantee in this wonderful
elevator.

And over 1000 of the Best
Plants all over the land say
"Amen" to what we promise
you.

1.—An Elevator that Costs
Virtually Nothing to Run.

The steam used being too
trifling to consider.

2.—Fool Proof. Only a sledge
hammer in the hands of the
"Fool" can put it out of
running.

3.—No Repairs. This is the
hardest thing to believe,
but when you take it up
with us we prove it.

4.—Always Goes. The only
thing that puts a Ridgway
elevator out of business is
the biler bustin'.

5.—Goes when the Engine is
shut down. And Old Jim
the engineer has banked up
and gone home.

6.—AND NO PAY UNTIL
IT MAKES GOOD.

When this thing gets into
the system of a Packer he will
be quick enough to

"Hook 'er to the Biler"

CRAIG RIDGWAY & SON COMPANY
COATESVILLE, PA.

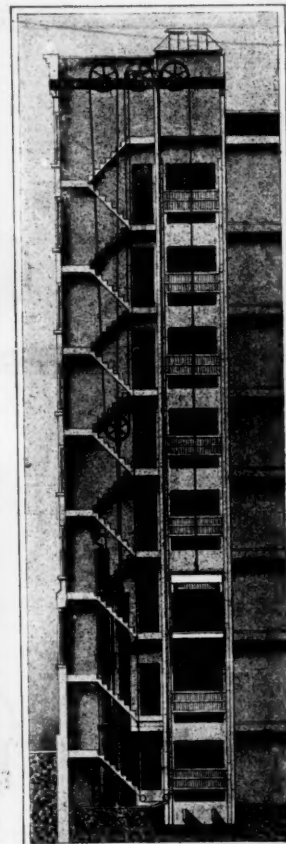
ELEVATOR MAKERS TO FOLKS WHO KNOW




Direct Acting Steam
Hydraulic Elevator

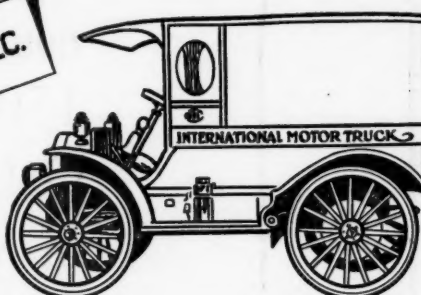


Double Geared Steam
Hydraulic Elevator





**THE
INTERNATIONAL
MOTOR TRUCK
PAYS FOR ITSELF IN A YEAR**



AN International Motor Truck not only pays for itself by saving in delivery costs but is more dependable than horse drawn vehicles. It is never tired nor sick but gives you 100 per cent service. It is built so strongly and simply that it very seldom requires repairs. When repairs are needed they can be made quickly because all parts are interchangeable and there is an International Motor Truck service station near you.

WHAT GROCERS SAY ABOUT IT

"Does more than two horses and wagons"—"Has never been out of order"—"Have used it every day for 11 months"—"Covers three times as much territory as my horse and wagon"—"Has more than paid for itself." We have hundreds of letters from satisfied users everywhere. Let us send you our booklet showing different styles of bodies and giving full descriptive particulars.

INTERNATIONAL HARVESTER CO. OF AMERICA

(INCORPORATED)

519 HARVESTER BUILDING, CHICAGO

For Sale

|| Second-hand Curing Vats

We offer for sale a large
number of second-hand
1500-pound Standard
Oak Curing Vats—
in splendid condition

If interested, address

ARMOUR  COMPANY

**UNION STOCK YARDS
CHICAGO**

THE NATIONAL PROVISIONER

OFFICIAL ORGAN OF THE AMERICAN MEAT PACKERS' ASSOCIATION

PUBLISHED EVERY SATURDAY

ENTERED AT NEW YORK AT SECOND-CLASS RATES.

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New York and Chicago, November 29, 1913.

No. 22.

EXPORTS OF MEAT PRODUCTS.

Exports of meat and dairy products for October, according to government estimates, aggregated 2½ million dollars more in value than for October a year ago. Increases were in lard, 5½ million pounds more; bacon 4½ million pounds more; hams and shoulders, 4 million pounds more. Tallow and neutral lard exports decreased. For the ten months export values increased 10 million dollars over a like period of 1912, the increases being chiefly in lard, 25 million pounds, and bacon 5 million pounds. There were decreases in exports of neutral lard, 16 million pounds; hams and shoulders, 7 million pounds, etc.

A synopsis of the export figures for the month, compared to a year ago, is as follows:

	Oct., 1912.	Oct., 1913.
Cattle, head	354	757
Cattle, value	\$26,911	\$25,460
Beef, fresh, lbs.	239,458	242,077
Beef, fresh, value	\$35,247	\$36,863
Beef, pickled, etc., lbs.	1,659,938	2,504,212
Beef, pickled, etc., value	\$152,310	\$243,661
Bacon, lbs.	13,035,734	17,782,144
Bacon, value	\$1,078,049	\$2,342,840
Hams and shoulders, lbs.	8,798,301	12,085,087
Hams and shoulders, value	\$1,225,950	\$1,793,469
Pork, pickled, etc., lbs.	3,198,181	4,293,497
Pork, pickled, etc., value	\$348,696	\$463,543
Lard, lbs.	33,358,832	39,139,195
Lard, value	\$3,820,654	\$4,464,237
Tallow, lbs.	1,968,818	1,040,303
Tallow, value	\$120,644	\$63,518
Oil, lbs.	6,054,382	6,523,993
Oil, value	\$799,077	\$889,851
Neutral lard, lbs.	2,704,492	1,940,359
Neutral lard, value	\$316,599	\$216,005
Total cattle, hogs and sheep, value	\$63,769	\$80,835
Total meat and dairy products, value	\$8,663,600	\$11,109,101

For the ten months the comparisons are:

	10 mos., 1912.	10 mos., 1913.
Cattle, head	32,160	6,306
Cattle, value	\$3,009,739	\$277,897
Beef, fresh, lbs.	7,500,719	5,600,711
Beef, fresh, value	\$890,641	\$690,764
Beef, pickled, etc., lbs.	23,361,420	21,498,819
Beef, pickled, etc., value	\$1,916,405	\$2,148,748
Bacon, lbs.	158,446,128	173,277,246
Bacon, value	\$19,254,232	\$22,676,931
Hams and shoulders, lbs.	149,235,005	142,343,096
Hams and shoulders, value	\$18,608,007	\$19,981,455
Pork, pickled, etc., lbs.	37,083,285	36,937,560
Pork, pickled, etc., value	\$3,633,822	\$3,980,702
Lard, lbs.	394,782,932	419,281,494
Lard, value	\$40,846,902	\$47,453,496
Tallow, lbs.	25,021,590	23,724,048
Tallow, value	\$1,538,731	\$1,527,270
Oil, lbs.	86,415,743	86,635,203
Oil, value	\$9,891,998	\$9,779,854
Neutral lard, lbs.	50,975,135	34,934,511
Neutral lard, value	\$5,617,598	\$3,989,630
Total cattle, hogs and sheep, value	\$3,469,099	\$754,234
Total meat and dairy products, value	\$104,714,015	\$115,425,883

BRITISH MEAT IMPORTS.

Official reports show that Great Britain during the first ten months of 1913 imported 781,617,200 lbs. of fresh beef, compared to 667,113,300 lbs. in a like period of 1912, 619,584,000 in 1911, 575,929,900 lbs. in

1910, 516,760,400 lbs. in 1909, and 463,490,500 lbs. in 1908. The constantly increasing necessity for securing beef from abroad is indicated in these figures.

Of this year's imports of beef 607,242,500 lbs. came from Argentina, 110,599,600 lbs. from Australia, 39,588,200 lbs. from Uruguay, 23,263,200 lbs. from New Zealand, and only 137,200 lbs. from the United States.

During this ten-month period Great Britain imported 452,440,100 lbs. of mutton, of which 212,307,000 lbs. came from New Zealand, 118,760,100 lbs. from Australia, 81,467,200 lbs. from Argentina, smaller quantities from Uruguay and other countries, and none from the United States. Bacon importations for ten months totaled 404,898,000 lbs., of which 191,679,700 lbs. were from Denmark, and 153,368,600 lbs. from the United States. Pork imports totaled 34,350,500 lbs., of which 31,679,500 lbs. were from the Netherlands. During the ten months Great Britain imported 175,228 head of cattle, of which but 9,893 came from the United States.

COLD STORAGE AND FOREIGN BEEF.

Pennsylvania's new cold storage law, compelling the labelling of meats held over 30 days as "cold storage" products, is interfering with the sale of imported beef in that State. Food Commissioner Foust received a letter a few days ago which inquired whether beef brought into this country from foreign countries in refrigerator ships, and on the way 30 days or so, had to be marked as a cold storage product.

The letter set forth that if the foreign beef can be sold as fresh beef after being carried 30 days or so in a temperature under 40 degrees, but not below freezing, "it will materially relieve the stress of market conditions in Pennsylvania." Otherwise, it is contended, there would be no market for it, except as a cold storage product.

The question hinges on whether a refrigerator ship can be considered as a refrigerator car. The twentieth section of the cold storage laws says: "Nothing in this act shall be construed to prohibit the shipping, consigning or transporting of fresh food in properly refrigerated cars within this State to points of destination; nor, when received, to prohibit the same being held in a cooling room for a period of 48 hours." In brief, the question is raised whether a vessel is a cold storage warehouse or not, and the law department will be asked to pass upon the question very soon.

WARM WEATHER HURTS MEAT TRADE.

The remarkably warm weather of the past ten days throughout the East has been disastrous to the meat trade in some directions. Coming just as Thanksgiving turkey shipments were being made, it caused immense loss from "struck" poultry which had to be destroyed on arrival at markets. There was also much loss to other meats, and conditions were so abnormal that meat inspection authorities issued warnings. Enormous quantities of poultry, game and other meat foods were condemned in many cities, and the economic loss was great, and at a time when it could ill be borne.

FRESH BEEF FROM ABROAD.

Imports of fresh beef at New York during the past week were light, compared to arrivals of previous weeks. The total imports for the week were but 2,137 quarters, compared to 5,790 quarters a week ago, and 6,381 quarters two weeks ago. This week's arrivals were almost entirely chilled Argentine beef, but 137 pieces of frozen beef arriving compared to a round 2,000 quarters of chilled beef. It was all via England. One big concern received 1,600 quarters and another 200 quarters, the balance going to commission houses and other consignees.

FOREIGN BEEF FOR THE NAVY.

Reports from Washington state that the Navy Department stocked the supply ship "Culgoa," about to sail for the Gulf of Mexico, with Argentine beef at a saving of somewhat more than half a cent a pound below the lowest estimate made on domestic beef. A consignment of 285,000 pounds was bought at 11.90 cents per pound, the lowest price for American beef being 12.49.

The Navy also has just saved \$9,528 by buying a quantity of canned corn beef in the Australian market. This consignment of 120,000 pounds was bought at 15.37 cents per pound, the lowest American price being 23.31 cents.

NEW ZEALAND MEAT EXPORTS.

During the first nine months of 1913 New Zealand exported \$295,016 worth of frozen beef, compared to only \$43,234 worth in the same time in 1912. Frozen lamb and mutton was exported to the value of \$381,398 in this period of 1913, compared to \$148,230 in 1912. Tallow exports totalled \$248,701 for the ten months, compared to \$194,083 the same time in 1912.

SELLING PACKINGHOUSE PRODUCTS

How Advertising Is Employed to Reduce Selling Cost

By E. B. Merritt, Advertising Manager for Armour & Company.*

[EDITOR'S NOTE.—This is another in the series of articles on packinghouse sales methods and salesmanship which have appeared from time to time in the columns of The National Provisioner. Written by one of the deepest thinkers in the packinghouse sales field, and one of the most successful co-operators with the sales department, this article is worthy the careful study of all packinghouse salesmen.]

The central problem of the whole Armour industry is the economizing of sales. We have so much invested in commodities, and so much in selling-power. Commodities are static, sales-power is dynamic; commodities are stable, sales-power is variable.

We consider each salesman as furnishing so much possible time, the field as furnishing so much space, and the goods so much subject for talk. The problem is to find the most economical relation between these three factors. If we add more lines, we diminish the opportunities for solicitation on each—and on the lines already carried. And if we add prospects to a salesman's list we diminish the opportunities for solicitation in each.

When we added grape-juice to our lines, with all the countless drug stores and dispensaries added as consequent prospects, it was obvious that less attention could be paid to butchers. According to old theories the only solution of the difficulty was to add salesmen as we added lines. This was done in some instances, and the practice still holds in some departments, the soap branch, for example, having its own force of salesmen.

But to do it throughout meant an enormous—and because of the low margin of profit prohibitive—expense. The problem bore a close analogy to raising the speed of a railway train. It costs more to increase speed from sixty to seventy miles an hour, than it does to raise it from twenty to thirty. In the same way it costs vastly more to increase grape-juice sales from 800,000 gallons to 900,000, than it does to increase them from 400,000 to 600,000.

As we build up the sales on specialties of this sort we approach what the economists call "the point of diminishing returns," that is, the more a salesman increases his attention to drug stores, the less he can pay to butchers—and after all, meat is still the backbone of the Armour industry.

Plainly, if we are to have a constant sales-force—and there are still a few who consider it a mistake—we must find a way for it to increase its efforts on new things without jeopardizing the old. If the man who sells beef is to sell grape-juice, he must not sell less beef but sell it more efficiently, in order that he may have energy to devote to grape-juice. Just as one farmer may have to add acreage to increase his crop, and another may by more skillful tillage get the increased crop out of the land he already holds, so Armour proposes to get its increased business by intensive development of its present sales-force, instead of increasing it.

What the Salesman's Problem Is.

Our problem is to make it possible for the salesman to call, find out the dealer's needs and book his order in the *shortest possible time*. We have to find the "irreducible minimum" of introduction and argument. To secure it, it is necessary for the salesman and

the house to have the confidence of the dealer. Confidence will enable us to dispense with a great deal of explanation. Confidence lowers sales-cost. And the cheapest and the best means of securing confidence is through advertising.

Salesmen who have been preceded by the proper kind of advertising can devote all their energies to the listing of the dealer's order, and can then move on to the next prospect without loss of momentum.

In other words, the unessential and stock part of the solicitation has been taken out of the mouth of the salesman and put on paper. The way has been prepared for him. He is expected, and the order he is after can be secured in a fraction of the time it would take under other circumstances. The salesman is not a whit less necessary than he was before. He has simply become more efficient.

In a previous article I explained how "institutional advertising"—the pushing of a name rather than a brand—made for cumulative strength. Our creed, in this respect, is precisely analogous to the development of individuals into clans and then into nations. A number of Romans, each waging war in his own particular fashion, would never have carried the eagles very far. In the days of Rome's glory, the most powerful passport a man could carry throughout the world, was the simple declaration, "*Romanus sum*." The homage that was universally accorded to this phrase was not homage to the man that bore it; it was homage to the mighty empire which he represented.

The Salesman's Passport Is Quality.

Just so we aim to make the single word "Armour" our passport, so that the potential consumer will not stop to analyze the individual product but will be content that it is a member of an imperial family in which he has confidence.

I showed, also, how a uniform label was the greatest single agency we had in building up this empire of products. The label brought the institution into one. It effected tremendous economies. But there was still more to be demanded of advertising.

To understand the problems we face it is necessary to clearly understand the Armour policy. It is different from that of most other businesses. Most manufacturers start with one product and then in time, if the demand and their facilities permit, they will add others in the same line. Very rarely do manufacturers go outside of their own line. Their salesmen are supposed to know one line and no other.

Our conception of business is different. We feel that the normal line of development is not necessarily along the one industry with which we began, but along the line of *employing the selling force* that has been built up. In the end, the real thing is the *profit*, not the industry.

Radical changes are coming over the face of modern business. Conditions are not as rock-bound as they used to be. They are becoming every day more free, and the great corporations, instead of remaining fixed and bound by precedent, and by the nature of their composition, as has been expected of them and declared of them, are really becoming the leaders and the pioneers in this sort ideas, they are actually far more receptive to of thing. Instead of being impervious to progress than the small business man.

Corporations as Sales Pioneers.

The reason is plain. The large corporations have attracted to themselves some of the greatest business intellects of the country. These men are naturally radical. Then again advanced methods of accounting and systematizing have been applied to every branch of their operations. All phases of selling and manufacture have been studied with an eye to cutting out every form of preventable waste.

The elimination of waste that appeals most to popular imagination lies in the utilization of by-products. But, as a matter of fact, the really greatest economy that we have effected lies in the utilization of the by-products of the salesman's time.

The Armour selling machine is, I believe, the most wonderful merchandising machine in the world. I am sure it has no superior. But the use of that machine presents peculiar difficulties.

Suppose we wish to increase the sale of a given product—say grape-juice. Do we wish actually to sell that increase—that is, sell it by the personal work of our salesmen?

Two great factors must be kept in mind in the solution of the difficulty. First, the sales-organization has a fixed potentiality in the way of time; and second, the amount of at-
(Concluded on page 24.)

INSPECTION OF IMPORTED MEATS.

The Federal meat inspection authorities call attention to the fact that inspection stamps and marks used on domestic products cannot be used on imported meats. A different stamp must be used which merely reads "U. S. inspected and passed by the Department of Agriculture." Attention is also called to the fact that imported products cannot be shipped in interstate commerce unless they are inspected and passed. The notice to inspectors further says:

Attention is called to section 3, regulation 8, B. A. I. Order 202, which provides that foreign meat and meat-food products after being inspected and passed and duly admitted into the United States shall be subject to the provisions of B. A. I. Order 150; therefore no portion of a consignment is eligible for interstate movement unless the product itself or the container thereof is marked to show that it has received Federal inspection. The interstate transportation of unmarked meat in uncovered containers will not be permitted.

Samples of meat and meat-food products which are subject to chemical analysis should be taken from each consignment offered for importation into the United States in order that it may be ascertained whether the requirements of the regulations are being complied with. Such samples should be submitted in the usual manner to the laboratories of this bureau. It will not be necessary to take samples of meat and meat-food products offered for importation under regulation 9 unless there is reason to suspect the presence of a substance prohibited by the regulations.

Carcasses or parts of cattle, calves, sheep, swine and goats offered for importation into the United States with such tissues as the pleura and peritoneum stripped or any of the body lymph glands removed in part or whole, or cut in any way other than is necessary to make a gland inspection, shall be refused admittance.

STEAM HINDERING INSPECTION.

The federal meat inspection authorities issue the following notice to the trade concerning interference with inspection work caused by steam or vapor:

"The attention of proprietors and managers of official establishments is directed to the notices published in Service Announcements for May and October, 1912, regarding the elimination of steam and vapor, and to the necessity for meeting this requirement. Inspectors in charge are directed to suspend inspection in departments during times when steam or vapor prevents the efficient performance of inspection and the cleanly handling of products, and to inform the Washington office promptly of the action taken."

*Reprinted from "Printer's Ink."

FUTURE MEAT SUPPLY OF THE UNITED STATES

Government Expert Believes It Must Be Produced at Home

By W. J. Spillman, U. S. Department of Agriculture.

The question naturally arises whether we have reached the era of permanent scarcity of meat which comes sooner or later to all densely populated countries, or whether, by adopting suitable measures, we can for a period increase supplies to meet the needs of our increasing population. Whether this can be done depends on the underlying causes of the present shortage and the possibility of remedying them.

It is clear that the farmer is not making exorbitant profits from livestock and its products. If such were the case he would produce more instead of less of them. Except on the ranges, beef cattle have always been produced at a very small average profit, frequently at a loss.

Farmers have produced beef mainly because they have been taught that livestock in some form is necessary to the conservation of soil fertility. We are now beginning to learn that this is not necessarily true, so that farmers no longer feel compelled to keep unprofitable animals merely for the manure they produce. This, in part, accounts for the decrease in beef cattle, and this factor will increase rather than decrease in importance as time goes on.

Faulty Methods of Distribution.

An important reason why farmers produce less meat than formerly is to be found in the system of distribution from producer to consumer that has grown up in this country. In most of the countries of Europe public abattoirs have been constructed to which farmers may consign their fat stock, the meat from which is then sold to the consumer without passing through the hands of an interminable line of middlemen, each of whom takes his toll.

In this country the farmer receives only a small fraction of the price paid by the consumer. Enormous packing establishments have monopolized the business, and there is little or no competition in buying the farmer's stock. The enormous fortunes that have grown up in this business in recent years show that the farmer has not been getting his full share of the profits.

Again, the retail meat business as at present conducted in cities renders enormous profits necessary. Numerous small groceries, each with its independent delivery system, clerks, fixtures, etc., each serve a few patrons scattered over considerable overlapping areas. Better organization of the retail business, whereby it shall be conducted in larger units, with well-systematized methods of delivery, are seriously needed.

Such organization should greatly lessen the retail price of meats and at the same time permit the farmer to receive better prices. This would encourage greater production. Private organizations for the systematizing of the retailing of meats, without public supervision, will not meet the situation. Such organizations have already grown up in the retail milk business, but instead of cheapening the product to consumers, or increasing the price to producers, they have converted the saving thus effected into exorbitant profits. Public abattoirs, with public sale of

the meats of animals slaughtered at them, have become a crying need in this country.

The only meat-producing animal that has been distinctly profitable to the farmer during the past decade is swine. But these have not increased in numbers, because of the danger from hog cholera. There is every reason to believe that the elimination of this disease would result in an immediate marked increase in the number of these animals. This would soon lower the price to the farmer sufficiently to check the increase, so that there is little chance that the deficiency in meat would be entirely met from this source. Besides, pork products would not serve the purpose of beef in our dietary. There is now a preventive serum for hog cholera, the use of which may result in an important increase in the supply of pork products.

Our Future Supply of Sheep.

Sheep are not generally profitable to the farmer. Their numbers are slowly decreasing nearly everywhere except on the ranges, and the latter are so fully stocked that not much increase is to be looked for in that direction. There is no probability of any considerable future increase in the number of these animals.

Most of the poultry products of this country are produced on farms under conditions that render the cost of production nominal. Much of the food consists of waste grains, insects, etc., which cost nothing. Most of the labor required is done at times that would not otherwise be profitably employed, or by members of the household who would otherwise be earning nothing. The farm price of poultry products is largely fixed by this nominal cost of production. Under such conditions, it is only the exceptional individual who can make poultry profitable as a major enterprise. There is, therefore, no prospect of increase in products of this class in greater ratio than the increase in population.

Causes of Decrease in Beef Cattle.

While many causes have contributed to the amazing decrease in the numbers of beef cattle in this country in recent years, the decrease in the number of cattle on the ranges of the West and the recent marked increase in the price of corn without a corresponding increase in the value of beef cattle on the farm are the principal ones.

During the last census period corn increased in value at the farm 80 per cent., while steers increased in value only a small fraction of this amount. Steer feeding was not highly profitable even under the old conditions. Under the new conditions the business was conducted at a loss for several years. But cattle have been higher and corn lower in price since 1910, until the drought of this year. Even now, with corn selling at a dollar a bushel in some Western beef-feeding sections, the price of cattle at the farm is little higher than before the effects of the drought were noticeable.

The ranges were long ago quite fully stocked. In recent years much of the best of the range has been converted to dry farming. The poorer ranges, suitable only for sheep, have not been so much occupied by farmers. Hence cattle have decreased while sheep were slowly increasing on the range. A flurry of high prices for range cattle a few years ago caused many cattlemen to dispose of a large proportion of young female stock, thus leading to later decrease in the size of their herds. Since a large proportion of the cattle fattened in the corn belt come from the ranges, there has been in recent years a notable shortage of feeders.

Possibilities of Increase in Cattle.

There are several possibilities of increase in the number of beef cattle. In the first place, young cattle have increased greatly in price with the prevailing shortage of feeder

stock. This tends to make profitable the growing of young stock of the beef breeds on farms that could not afford to do so formerly. Any considerable increase in the price of beef cattle at the farm would probably result in a few years in a marked increase in the rearing of calves on farms, if not on ranges. It would also tend to stop the slaughter at birth of male calves of the dairy breeds, as well as to decrease the number of calves of both sexes now made into veal.

There can not be a great increase in cattle on the ranges, for reasons already given.

The elimination of the cattle tick in the South, thus removing the danger from tick fever, will undoubtedly have an important bearing on the future supply of beef cattle in this country. The South, with her short, mild winters and her abundance of good grasses, can grow young cattle cheaper than the North, though she can not fatten them so cheaply as can the corn-belt States.

With the tick eliminated, the South could thus produce millions of feeders which could be fattened in the North, to the profit of the Southern farmer and the advantage of the Northern corn grower and the consumer of beef as well. The eradication of the cattle tick thus rises to the dignity of an important national problem. Already more than one-fourth of the infested area has been cleared, and the work is progressing rapidly under the joint auspices of the Nation and the States concerned. But it has required seven years to remove ticks from one-fourth of the area. This work should be pushed more vigorously.

The importation of beef from Argentina has already begun. What proportions this trade may assume and what effect it may have on domestic supplies and prices can not be fully foreseen. It seems probable that, with meat scarce and dear in Europe, it can hardly become plentiful and cheap in this country as the result of importations which are free to enter the markets of England. If importations should reduce the price of cattle on the farm the domestic supply will undoubtedly decrease, but this does not appear to be likely.

The foreign supply seems hardly sufficient to supply both Europe and America with cheap beef, unless it be of very poor quality.

CANADIAN MEAT PRICES SOAR.

"Though the new United States tariff bill has been in force only about a month, its effects are already being appreciably felt in Eastern Canada," says the Manitoba Free Press. "Especially is the one-sided character of the tariff revision, as distinguished from the agreement of interchange proposed by the reciprocity pact, being brought to the notice of the Eastern Canadians. By the immediate prospect of higher cost of living it is being brought to the notice of the consumers who see Canadian produce entering the American market free, while free interchange of American products is denied. Meats, already higher in price, are jumping rapidly in cost with the increased movement of Canadian animals across the line as a result of the new tariff.

"The operation of the new tariff is primarily, and almost wholly, responsible for the marked increase in the price of Canadian meat," said an official of the government, whose duty it is to watch the meat trade generally, and the circumstances surrounding it. "There is no other explanation. Why, the day after the new tariff went into force meat jumped from a dollar to a dollar and a quarter a hundred in Toronto. It is all folly to say that the farmer is not benefiting by the increase. He may not be alone in it, but certainly he is getting a higher price in the American market. Why should he sell elsewhere?"

PRACTICAL POINTS FOR THE TRADE

ACTUAL PACKINGHOUSE TESTS.

[EDITOR'S NOTE.—Every packinghouse superintendent keeps a record of tests, which is his most precious possession, and which serves him as a guide and reference in succeeding operations. It is only actual tests that tell the story in packinghouse practice; theory is all right, but practical results are a necessary guide always. The National Provisioner has printed on this page of "Practical Points for the Trade" many tests of this sort, in answering inquiries from subscribers. It has many more of these test results at its command, and will publish them from time to time for the general information of readers, instead of withholding them until some specific inquiry is made.]

PORK SAUSAGE TEST.

Following are the details of a test made on pork sausage, farm style: Pork cuttings, not too fat, 315 pounds; good sausage flour, 2½ pounds; salt, 12 pounds; pepper, 2 pounds; sage ¾ pound; saltpeter, 6 ounces; water sufficient to make the mass of the proper consistency. Stuff in hog casings. Cuttings must be perfectly fresh, and clean cold water must be used, at the same temperature as the chilled meat. Some like the addition of a little sugar, not to exceed 5 ounces per 100 pounds of meat. Hog casings will run about two bundles to 100 pounds of meat used, and labor about fifty cents per 100 pounds finished weight.

INGREDIENTS OF CURING PICKLE.

A Pennsylvania provision manufacturer writes as follows:

Editor The National Provisioner:

Would you kindly give us the percentage of saltpeter to use per 100 gallons of pickle for bacon. Also same for hams. Also the amount of sugar per 100 gallons for bacon pickle; the amount of molasses per 100 gallons for ham pickle; also the salt test on bacon pickle, and same on ham pickle?

A very good curing (not pumping) pickle contains 5 pounds of saltpeter and 35 pounds of pure cane sugar per 100 gallons, which with salt sufficient to make the whole 70 to 72 degs. strength, is satisfactory for bacon, and 75 to 78 degs. for hams. The pickle should be kept at a temperature around 30 to 32 degs. Fahr.

Molasses does not seem to be very popular today as a pickle ingredient. A very acceptable formula embodying syrup is made up as follows: 22 pounds salt, 3 quarts of good

syrup and 12 ounces of saltpeter per tierce of 300 pounds of meat. This would mean somewhere around 15 gallons of pickle, testing about 75 degs. strength.

Directions for curing hams, published in the November 1 issue of The National Provisioner on this page, is worth looking up in this connection, and will answer some of these questions. "Pumping" and "curing" pickle formulas should not be confounded with each other.

MAKING GLUE LIQUORS.

An inquirer from New England asks the following questions:

Editor The National Provisioner:

1. What is the approximate amount of water necessary to convert one ton of limed glue stock into glue liquor? I do not include water necessary for deliming, but only that required for actual cooking.

2. What is the density to which the glue liquor should be cooked?

3. What is the approximate size of kettle required to convert one ton of glue stock, calculated on the limed condition?

4. What is the size of evaporator necessary for the liquor obtained from "question 1"?

One authority on evaporation answers these questions as follows, by number:

1. Approximately 750 gallons.

2. Density of glue liquor in cooking, 5 to 8 degs. Baumé in winter and 8 to 10 degs. Baumé in summer.

3. Depends on the material.

4. Size of evaporator depends on total output. Manufacturers of evaporators whose advertisements appear in these columns will be glad to answer this question.

Referring to these questions a well-known glue factory superintendent says: "The inquirer has not gone far enough into detail. There are a great many different kinds of fleshings, and it would be hard to say just what quantity of water should be used. It would be safe to say, just cover your stock with water. As to the density of glue in winter and summer, this would depend entirely upon the nature of the material being worked. The approximate size of kettles required would also have to be regulated by the class of material."

BONING PIGS' FEET.

A Pennsylvania butcher asks this question: Editor The National Provisioner:

Can you inform us of the best method for boning pigs' feet after they have been boiled for souse.

About the easiest way to separate the bones from pigs' feet cooked for souse would be to put the whole batch through a screen with mesh small enough to catch all the small bones. Providing the feet are well cooked and screened while hot, there should be little trouble eliminating the bone, as the meat will drop off the bones and through the screen by stirring around with a paddle of any kind. Pigs' feet (front) should be worth more cooked and sold whole than when made into souse, which latter may be made just as well of ears, snouts, etc.

REFRIGERATED BARGES.

To heat refrigerating barges may sound like baking ice cream, but it is actually being done to a new line of barges that are beginning to appear in New York harbor. They are nothing short of floating thermos bottles, maintaining the same temperature the year round. Two of them, each 90 feet long, have been placed in service by the Lehigh Valley Railroad, and three more are to follow to form part of a special service, the Lehigh Valley having recently added 1,000 new refrigerator cars to its rolling stock. These barges are particularly useful in transferring fruit and other perishable freight to steamers in New York harbor, keeping the temperature even during the entire journey from the producer to the European markets, and insuring its soundness and flavor.

The new barges will have a uniform temperature of 40 degs. Fahr., 8 degs. above freezing, the temperature maintained in refrigerator cars. Little icing or heat will be required, however, as the new barges are built to be impervious to heat or cold. Three thicknesses of white pine, alternating layers of specially prepared siding, and two layers of hair felt make it easy to keep the temperature on the inside what it should be. The captains of these barges live on board to keep constant watch on the temperature.

RAW MATERIALS OR WASTE—WHICH?

When the Consolidated Rendering Co. built its new plant at New Haven, a part of the equipment was a double-effect Swenson Evaporator for reclaiming fertilizer from tank water. This apparatus is now being installed in the new plant. It is standard policy now with the Consolidated Rendering Co. to put in an evaporator for tank water in every new plant. This apparatus is considered as much a matter of course as are the boilers and other parts of the power plant. Each one of the 25 or more affiliated companies has such an equipment—all of them, as it happens, being Swensons, the first of which was installed about 15 years ago.

This is in direct contrast to the practice of most of the independent medium-sized packing houses or rendering plants, where it seems to be the custom

to consider tank water as a waste, and to make no effort to reclaim from it the valuable ammonia which it contains. In nearly all these cases, however, after two or three years of operation the management awakens to the fact that the direct income from this tank water is sufficient to pay for the evaporator within a few months after which the income is clear profit. One plant in Chicago estimates that the profit from this source amounts to more than \$100,000 annually, a figure far in excess of the original cost of the equipment.

It seems to be clear, therefore, that inasmuch as this tank water contains so good a percentage of ammonia-bearing materials, salable at a good figure for use as fertilizer, there is no question as to this by-product being raw material and not a waste product.

SWENSON EVAPORATOR CO.

945 Monadnock Block

(Formerly American Foundry & Machinery Co.)

CHICAGO

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STATUS OF OLEOMARGARINE

In the midst of high-cost-of-living discus-
sions there is a lot of complaint of high and
higher butter prices. Concerning the oleo-
margarine situation the Inter State Grocer
says: "We believe that Congress is getting
tired of considering, session after session, the
matter of reducing or removing the ten-cent
tax on colored oleomargarine. The members
are probably in the right frame of mind now
to think seriously of letting oleo compete
with butter on its own merits, and a move-
ment started by the retail trade all over the
country would more than likely have good
effect."

Whether Congress is tired or not, consum-
ers are, as is evidenced by the official sta-
tistics of increasing oleomargarine produc-
tion. In spite of the weight of unjust federal
and state legislation against oleomargarine
inspired by the butter interests, the con-
sumption of oleomargarine is steadily grow-

ing. Nearly 150 million pounds were made
in the United States in the past twelve
months, and the production last month was
far in excess of that for the same month
a year ago.

The people are tired of the discrimination
which seeks to give butter a monopoly of the
market. They are showing that they can
rise superior even to butter-made laws.
They are buying oleomargarine for what it
is, under its own name, in spite of trade
abuses made possible by unjust laws. When
oleomargarine is permitted by law to "com-
pete with butter on its own merits" fully
and freely, you will see an even greater in-
crease in oleomargarine consumption than
at present.

THEORIES AND CONDITIONS

Very interesting and important reviews of
the meat supply situation written by experts
of the United States Department of Agri-
culture have been published in full in the
columns of The National Provisioner in re-
cent weeks. The last of the series, written
by the expert in charge of the Department's
office of farm management, appears in this
issue.

Mr. Spillman calls attention to the fact
that we have begun to import meat from
abroad, and discusses the meaning of this
development. He concludes that we cannot
permanently depend on foreign meats, but
must look to our home sources to fill our
future needs. This brings him to a discus-
sion of the development of our domestic beef
resources, wherein his identification with and
sympathy for his friend, the farmer, natu-
rally crops out. He says that farmers do
not raise more beef because they do not
make enough money at it, and he seems to
lay the chief blame at the door of "an in-
terminable line of middlemen, each of whom
takes his toll."

He compares the European system of pub-
lic abattoirs, "where farmers consign their
fat stock," with the situation in this coun-
try, where, he says, "enormous packing es-
tablishments have monopolized the business."
Does Mr. Spillman mean to infer that the
system is wrong in this country, and that
we should not operate private packing plants
here, but substitute a system of public abat-
toirs, where every raiser could have his stock
slaughtered and sold for him?

It hardly seems worth while to pursue
such a line of argument. Any capable busi-
ness man, whether he knows anything of
the packing business or not, should be able
to see the result of attempting to apply the
European abattoir system to this country.
Mr. Spillman is an amiable theorist with a
natural bias toward the farmer's interests,
and he is evidently unable to see that as re-
gards this phase of the meat marketing

problem in this country it is "a condition
and not a theory that confronts us."

He should not confuse the Department's
very proper suggestion of public abattoirs
for localities where commercial meat packing
is not feasible with the idea of a public abat-
toir system for the entire country.

Perhaps, however, he has more faith in
political management of packinghouses than
other people have. In this connection it is
interesting to learn that the London Metro-
politan Cattle Market, which possesses what
is claimed to be the finest public slaughter-
house in Europe, is losing between \$20,000
and \$25,000 a year. Is that the sort of pub-
lic abattoir he would saddle on the public,
or does he think our politicians could run a
packinghouse more profitably than an eco-
nomical Englishman?

CANADA MEAT SUPPLY LESS

Canadian Government census reports show
that in 1912 there were in Canada 4,093,600
beef cattle, compared to 4,210,000 in 1911, 4,-
260,963 in 1910, 4,384,779 in 1909 and 4,629,-
836 in 1908. The same reports show 2,360,-
600 sheep in Canada in 1912, compared to
2,831,404 sheep in 1908. In 1912 there were
2,656,400 hogs in Canada, while in 1908 there
were 2,369,858 hogs.

And yet the theorists talk about Canada
as a source from which we may secure ample
meat supplies, now that the duty has been
removed. In the United States our cattle
supply, deficient as it is, totals ten times that
of Canada, with other meat animals in pro-
portion. And yet we are to expect a flood of
meat from Canada.

When the duty was removed last month
there was the beginning of a rush of meat
shipments to the United States. Prices in
Canada immediately bounded upward, and
the rush suddenly stopped. It was not sur-
prising, considering the figures quoted above.

ARGENTINE CATTLE DISEASE

Foot-and-mouth disease in the Argentine is
reported to have developed over a wide area.
In a recent issue La Nacion comments on
the outbreak thus: "All attempts to minim-
ize the severity of the outbreak, or the extent
to which the disease is diffused, are un-
availing."

Appearance of this disease in the United
States in past years would have been her-
alded all over the world as a warning against
American beef. In this case no one even
thinks of its having anything to do with im-
portations of Argentine beef, which are
passed by our government inspectors as rap-
idly as the stamps can be affixed to the car-
casses. In the former case the agitators had
an axe to grind; in this instance they have
none. It all depends.

TRADE GLEANINGS

The Mendenhall Soap Company will build a soap factory at Mobile, Ala.

The Chickasha Cotton Oil Company's warehouse at Chickasha, Okla., has been damaged by storm.

The Planters' Cotton Oil Company, Dallas, Tex., has increased its capital stock from \$100,000 to \$150,000.

The Idabel Cotton Oil Company, Idabel, Okla., is completing its new plant. W. E. Mendenhall is president.

J. W. Smathers will establish a fertilizer plant at Hendersonville, N. C., to grind bones and prepare chicken feed and fertilizer.

Louis Burk has acquired the property alongside of his packing plant at Philadelphia, Pa., upon which an addition will be erected.

Juan Castillon, F. S. Breeding and W. Van Sickle have incorporated the Border Cattle Company of Alpine, Tex., with a capital stock of \$5,000.

The Freise Packing Company, St. Louis, Mo., has been incorporated with a capital stock of \$7,000 by Wm. Freise, S. Freise and Geo. Freise.

The Tennessee Cattle Company, Dyersburg, Tenn., has been incorporated with a capital stock of \$140,000 by S. G. Latta, J. C. Doyle and E. Rice.

The Berkshire Fertilizer Company, Bridgeport, Conn., has been incorporated with a capital stock of \$50,000 by T. A. Kirkham, F. L. B. Kirkham and Paul Hine.

The East Rochester Packing Company, Rochester, N. Y., has been incorporated with a capital stock of \$25,000 by W. D. Smith, of Brooklyn, and A. T. Jones and C. Lebrecht, of Palmyra.

The directors of the Orleans Cotton Oil Company, New Orleans, La., at a meeting held on November 15, adopted a resolution to hold a meeting of stockholders on December 18 for the purpose of considering dissolving the corporation known as the Orleans Cotton Oil Co.

John J. Halstead, a member of the once

prominent meat packing firm of Halstead & Company, of New York and Jersey City, died on November 24 in his home, at No. 96 Lincoln place, Brooklyn, of hardening of the arteries. He was sixty-eight years old and is survived by his wife, a son and a daughter. Mr. Halstead was a member of the New York Produce Exchange. For several years he had not been actively engaged in business.

SOUTH AMERICAN TONGUES.

In the monthly report of the London Medical Officer of Health, submitted to the Port of London Sanitary Committee, reference as follows is made to tongues from South America:

"Special attention has been paid to tongues imported in a frozen condition from South America. A large number have been defrosted, and an examination was made of the glands at the root of the tongue, with the result that out of 12,800 tongues, 533 have been found diseased. The deposit of tubercle in the gland in many instances was so extensive that it is obvious that the animal from which the tongue was taken must have shown signs of tuberculosis elsewhere. The glands in the tongues, in the majority of instances, had not been examined at all, and had not even been exposed.

"I recommend that these facts be reported to the Local Government Board and the government of the Argentine Republic. The process of de-frosting and examination must cause considerable inconvenience to the importers, but the question of public health must receive the first consideration, and this examination must continue until the standard of inspection in the Argentine is such as will prevent the export of tongues from any animal showing any signs of tubercular disease."

MEAT INSPECTION CHANGES.

Recent changes in the federal meat inspection service are reported as follows:

Meat inspection inaugurated: *F. T. Nance & Company, Morristown, Tenn.; *Jefferson

City Packing Company, Jefferson City, Tenn.; *J. C. Palmer, Charleston, Tenn.; *Belmont Farm Products Company, Belmont, Mass.; the Hughes Provision Company, 162-164 Passaic street, Trenton, N. J.; *Chase Packing Company, Faribault, Minn.; Citti Brothers, 311 West Illinois street, Chicago, Ill.; *Tazewell Packing Company (Inc.), North Tazewell, Va.; Carson & Company, Canal and High streets, Trenton, N. J.

Meat inspection discontinued: Charles Brandt, 670 Tenth avenue, New York, N. Y.; Woelfle & Pieffer, 1530 Second avenue, New York, N. Y.

*Slaughtering is conducted.

URUGUAY'S EXPORTS FOR HALF YEAR.

Included among Uruguay's exports for the first six months of 1913 were shipments of live cattle having an aggregate value of \$2,164,294; sheep, \$218,110; tasajo (jerked beef), \$3,210,990; preserved tongues, \$121,221; grease, \$241,536; tallow, \$1,604,295; salted cattle hides, \$3,342,056; frozen meat, \$4,000,541; concentrated beef tea, \$108,544; preserved meat, \$699,372; extract of meat, \$313,871; wool, \$19,377,198; dry cattle hides, \$872,280; sheep skins, \$1,446,471; horse hair, \$160,203; calf hides, \$105,060.

CUDAHY PROFITS INCREASE.

The annual financial report of the Cudahy Packing Company for the year ended November 2, 1913, showed net profits \$200,000 greater than the previous year. The figures compare as follows:

	1913.	1912.
Total sales	\$104,408,780	\$90,443,970
Net profits	1,329,178	1,129,465
Surplus after dividend.....	509,178	609,465

SOUTH AMERICAN MEAT CASINGS.

Official reports show that Buenos Aires exported casings valued at \$257,840 in 1912, and \$388,291 in 1911. Weasands, listed separately, were exported to the amount of \$1,880 in 1912 and \$9,831 in 1911. Exports this year have increased considerably.

PACKERS who buy our SPECIAL HAM PAPER for smoked meat wrapping and Lard Liners, get the GREATEST VALUE the market offers.

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FOR PURCHASING DEPARTMENTS

A NEW TYPE OF FAT CUTTER.

The new "Boss" fat cutter cuts raw fat into cubes for sausages as it is fed into the knives. It works differently from the old-style fat cutters, which have a fat box and stationary blade knives. It cuts continuously, and there is no time lost in reloading the fat box and no squeezing of fat, as revolving round knives do the cutting and forward the fat to the cut-off knives. This, it is claimed, assures faster and better work. Wherever in use these machines are said to give the best of satisfaction and the manufacturers, The Cincinnati Butchers' Supply Company, Cincinnati, Ohio, will be pleased to give full information about them. Machines were lately sold to the A. Sander Packing Company, Cincinnati, Ohio; Wm. Zoller Company, Pittsburgh, Pa., and Chas. Sucher Packing Company, Dayton, Ohio.

THE JOHNS-MANVILLE CO. IN OHIO.

The Cleveland (Ohio) district branch of the H. W. Johns-Manville Company has recently been obliged to provide larger quarters for several of its subsidiary offices. The Columbus (Ohio) office and contract department are now located on the ground floor of the new seven-story fire-proof Peters Power Building, 45 West Long street, Columbus, with large warehouse facilities half a block distant. The Toledo office and warehouse have been moved to 213 Water street, Toledo. This office has just completed a pipe covering, stack lining and cork tiling job in the Second National Bank Building, Toledo, which possesses many unique features.

Other Cleveland branch sub-offices are located in Akron, 717 Second National Bank Building, Dayton, 259 Fourth Street Arcade; and Youngstown, 502 Stambaugh Building. Resident representatives are stationed at Lima, Massillon, Greenville and other points in Ohio, also at Huntington and Parkersburg, W. Va. Their work is supplemented by a large corps of traveling men. The Cleveland branch has just closed a long-term lease for another larger warehouse on Front street, Cleveland, which, when remodeled, will give the branch larger and better storage and shipping facilities than ever.

FRICK REFRIGERATING MACHINERY.

The following is a list of recent sales of Eclipse refrigerating and ice-making machinery by the Frick Company, Waynesboro, Pa.:

Coca Cola Bottling Works, Rockwood, Tenn., 50-ton vertical single-acting refrigerating machine, 25-ton improved flooded freezing system and 25-ton distilling system.

Exmore Ice and Storage Company, Exmore, Va., additions to present freezing system.

J. I. Coleman, ice and cold storage, Kelvin, Ariz., 10-ton vertical single acting refrigerating machine and 6-ton improved flooded freezing system, to be installed at Superior, Ariz.

Orlando Water and Light Company, Orlando, Fla., replacing present vertical single acting ammonia cylinders with those of larger size; 45-ton freezing system, etc.

Enterprise Ice and Coal Company, Harri-man, Tenn., 50-ton vertical single-acting refrigerating machine, 28-ton freezing system and 30-ton distilling system.

Henryetta Ice and Light Company, Henryetta, Okla., 50-ton vertical single-acting refrigerating machine, 25-ton improved flooded freezing system, 25-ton distilling system and storage piping.

Henderson Ice and Cold Storage Company, Henderson, S. C., 60-ton horizontal double-acting refrigerating machine.

Crystal Ice Company, Catasauqua, Pa., 58-ton vertical single-acting refrigerating machine, 35-ton improved flooded distilling system, 35-ton boiler system and storage piping.

C. W. Holbrook, Venice, Cal., 3-ton vertical single-acting refrigerating machine and storage piping, for use in meat market.

Bureau of Engraving and Printing, Washington, D. C., 20-ton vertical single-acting compression side and water cooling plant.

Kolbe Fish Company, Erie, Pa., freezing system and storage piping.

Von Hamm-Young Company, Ltd., importers, commission and machinery merchants, Honolulu, T. H., 6-ton vertical single-acting refrigerating machine, ammonia condensers and storage piping, to be installed in Moana Hotel, Honolulu, T. H.

Crockett Ice, Electric Light and Power Company, Crockett, Texas, 30-ton vertical single-acting refrigerating machine, 10-ton improved flooded freezing system, and 16-ton distilling system.

John Hague Engineering Company, refrigerating engineers, St. Louis, Mo., 3-ton vertical single-acting refrigerating machine for S. Freise, St. Louis, Mo.

The C. H. Preston Company, Crescent City, Fla., 3-ton vertical single-acting refrigerating machine.

Armour Glue Works, Chicago, Ill., 90-ton vertical single-acting ammonia compressors to replace another make.

Commonwealth Cold Storage and Ice Company, Boston, Mass., four 170-ton vertical single-acting refrigerator machines, 225-ton freezing system and 325-ton refrigerating brine cooling system.

Hosler Ice Cream Company, Albany, N. Y., 8-ton freezing system.

Mollenberg-Betz Machine Company, Buffalo, N. Y., 6-ton vertical single-acting refrigerating machine, to be installed at Faxon, Williams & Faxon Company's store (drugs, grocery and bakery), Buffalo, N. Y.

Alabama City, Gadsden and Attalla Railway Company, Gadsden, Ala., 20-ton improved flooded freezing system.

Mollenberg-Betz Machine Company, Buffalo, N. Y., 45-ton vertical single-acting refrigerating machine, to be installed in Chipewa Market, Buffalo, N. Y.

Armour & Co., Chicago, Ill., two 300-ton cross compound vertical single-acting refrigerating machines, to be installed at De La Plata, Argentine Republic, South America.

The Bangkok Manufacturing Company, Bangkok, Siam, changing present freezing system to improved flooded freezing system.

American Ice Company, Philadelphia, Pa., 12,000 feet 2 inch direct expansion piping for storage room.

Mayer Ice Machine and Engineering Company, Jersey City, N. J., 10-ton absorption high side.

Hemmer Ice Cream Company, Zanesville, O., one 15-ton and one 30-ton horizontal double-acting refrigerating machine, 14-ton freezing system and ice cream freezing system.

John Hague Engineering Company, refrigerating engineers, St. Louis, Mo., 15-ton

vertical single-acting refrigerating machine for Walnut Grove Dairy Company, Alton, Ill.

Gloucester Ice Manufacturing Company, Gloucester, N. J., direct expansion piping for ice storage.

The Phoenix Ice Machine Company, Cleveland, O., 10-ton horizontal double-acting refrigerating machine for John Wildi Evaporated Milk Company, Ridgeway, O.

Edward E. Rieck Company, ice cream manufacturers, Pittsburgh, Pa., 250-ton cross compound vertical single-acting refrigerating machine.

W. E. Davison, prop. Eastman Electric Light Company, Eastman, Ga., 12-ton ice plant with vertical single-acting machine, freezing system, distilling system and storage piping for use in ice factory.

Media Cold Storage and Ice Company, Media, Pa., 15-ton ice making plant, with vertical single-acting machine, freezing system and distilling system.

Otto Wunder, Ellicott City, Md., 20-ton raw water ice plant with vertical single-acting machine.

Mollenberg-Betz Machine Company, Buffalo, N. Y., ammonia condensers and double pipe brine coolers.

Barnett & Hoover, butchers, ice cream, etc., Roaring Spring, Pa., 10-ton improved flooded freezing system and 10-ton distilling system.

Huyler's Candy Factory, New York, N. Y., 24-ton horizontal double-acting refrigerating machine and storage piping for use in candy factory, Chicago, Ill.

Ram Chand Luchman Dass, Bareilly, India, 30-ton vertical single-acting refrigerating machine.

Greentown Canning Company, Greentown, Ind., 6-ton ice plant with vertical single-acting machine, improved flooded freezing system, distilling system, boiler system and storage piping.

Hayti Ice and Cold Storage Company, Hayti, Mo., 6-ton vertical single-acting refrigerating machine.

San Antonio Machine and Supply Company, San Antonio, Texas, 12-ton vertical single-acting ice making machine for Ernest Flach, prop. Comfort Roller Mills, Comfort, Texas.

Meadow River Lumber Company, Rainelle, W. Va., 6-ton vertical single-acting refrigerating machine, 1-ton freezing system and storage piping for use in general store.

United Iron Works, Oakland, Cal., 20-ton vertical single-acting refrigerating machine, 10-ton freezing system, 10-ton distilling system, steam condensers, etc., for Taylor Ice Company, Santa Ana, Cal.

Kaufman Ice Factory, Kaufman, Texas, 36½-ton vertical single-acting refrigerating machine, 12-ton improved flooded freezing system and 12-ton distilling system.

Grand View Mill, Light and Ice Company, Grand View, Texas, 8-ton ice plant with vertical single-acting machine, improved flooded freezing system and distilling system.

Fussell Ice Cream Company, Washington, D. C., 15-ton horizontal double-acting refrigerating machine.

Camden Ice and Coal Company, Camden, Okla., storage piping.

National Ammonia Company, Frankford, Philadelphia, Pa., ammonia condensers.

Cummer Manufacturing Company of Texas, Paris, Texas, 58-ton vertical single-acting refrigerating machine, 35-ton improved flooded freezing system, 40-ton distilling system and storage piping.

BRECHT REFRIGERATING MACHINERY.

A list of installations of refrigerating machinery by the Brecht Company was published last week on this page. These installations were only those made by the New York branch of the company, and did not include sales made by the St. Louis, Denver or San Francisco branches.

ICE AND REFRIGERATION

NEW CORPORATIONS.

Roanoke, Va.—The Roanoke Dairy Company has been incorporated by J. R. Berrier and B. Thyson. The capital stock is \$25,000.

Richmond, Va.—The Wynne Ice Cream Company has been incorporated with a capital stock of \$25,000 by P. M. Wynne, O. O. Rudd.

Cleveland, O.—The Hoffman Ice Company has been incorporated with a capital stock of \$10,000 by P. S. Knight, D. P. Mills and E. Wolfe.

Morristown, N. J.—The Leonard Hygiene Ice Company has been incorporated with a capital stock of \$100,000 by S. M. Leonard, P. Jaquo and P. A. Van Winkle.

Brownsville, Tex.—H. E. Williams, of Dallas, has organized a company with \$150,000 capital stock to establish a cold storage for truck and other products of that section.

ICE NOTES.

Helena, Ga.—The Helena Ice Company's plant has been damaged by fire to the extent of \$16,000.

Savannah, Ga., E. R. Conant, City Engineer, has prepared plans and estimates for refrigerating market.

Columbia, Tenn.—The Sip Bottling Corporation, Memphis, contemplates establishing an ice and cold storage plant here.

Maryville, Tenn.—The Maryville Ice and Coal Company will open proposals on March 1 on its new \$10,000 building to be erected.

Ensley, Ala.—Work has been commenced on the erection of the new ice plant for the Steel City Ice Company. It will have a capacity of 50 tons.

St. Louis, Mo.—The Polar Wave Ice and Fuel Company has plans prepared for its new ice storage plant. It will cost around \$40,000. New refrigerating machines will be purchased.

Yonkers, N. Y.—The directors of the Terrace City Hygeia Ice Company have made application for the dissolution of the company and the appointment of a receiver. Its liabilities are \$119,716.80, and assets \$125,000.

New York, N. Y.—Plans have been filed for the construction of a four-story ice plant, with storage, stable and office, on the northwest corner of Amsterdam avenue and 184th street. It will have a frontage of

97.5 feet on the avenue by 196.11 feet on the street and it will be a fireproof building. The Ice Manufacturing Company, of which Thomas Pettigrew is the president, is the owner. Mortensen & Company, the architects, have estimated the cost at \$135,000.

DIMENSIONS, PROPORTIONS, CAPACITY AND INSULATION OF REFRIGERATOR CARS.

By M. R. Parks, East Rochester, N. Y.*

There are various kinds of refrigerator cars used for the transportation of perishable products and the necessity for increased efficiency has been felt by the railroad companies handling this equipment. Many shippers have claimed that due advance has not been made in the construction of refrigerator cars to keep pace with the general refrigerating cold storage plants and refrigerating engineering of the day. Many of the older cars were lacking in insulation, which is the main feature, and have also lacked in ice capacity.

However, the service demands for refrigerator cars have increased so rapidly that it has been impossible to do much more than give the added equipment necessary attention rather than to attempt to rebuild the older. The refrigerator cars used by the various railroads differ considerably in construction and in a greater degree as to the insulation. The cars vary in efficiency because of the light construction and insulation, or because of a variation in the insulating material itself. Knowing the faults of the older refrigerator car, has stimulated thorough and thoughtful consideration and study along the lines of increased efficiency.

Dimensions and Proportions.

It is only within the past few years that substantial accord has been reached in the principles underlying the best practice in the development of the refrigerator car. It must not be supposed that there is entire unity

*Paper read before the Third International Congress of Refrigeration, Chicago, September, 1913.

of opinion existing among the engineers and manufacturers in connection with this particular class of car construction and it can be plainly stated that the opinions held and the individuals holding them may be broadly divided.

The history and development of the refrigerator car is an excellent guide to the manufacturers and operators in adopting a car with standard dimensions. It can be universally stated that the disadvantages resulting from the existence of numerous types and sizes of cars, places the shipper at an inconvenience. As some of the cars may be lighter or heavier than others, it is naturally a question as to which standard is right.

The most modern refrigerator cars in service, and in fact, nearly all which are being built at the present time that are used in the dairy business are governed almost entirely by the size of the egg cases—this being the only uniform commodity used in carload lots which practically affects the dimensions of the car. The cases being 12 inches square and 26 inches long, the refrigerator car has developed to a point where for a carload lot about 800 cases of eggs can be loaded. The railroad systems without any concerted action have arrived at a car which has inside dimensions of about 8 feet 2 inches to 8 feet 4 inches in width, and about 7 feet 6 inches in height, and practically 33 feet between ice tank bulkheads.

The car with the above dimensions will take 15 egg cases in length and will allow for seven tiers to be loaded in height, allowing for sufficient space for the circulation of air over the top tier. With a car of the inside dimensions noted, the length over the end sills would be about 41 feet 4 inches to 41 feet 5 inches. Inasmuch as these dimensions have been arrived at by each road, independent of the other roads, it would appear that they more nearly meet the general traffic conditions today than any other dimensions.

It is evident that the adopting of a uniform standard for refrigerator car conditions by the railroad systems will be a great benefit to both the shipper and manufacturer. This standard should be based upon experience, not only by the shipper, but by the railroad system supplying this particular class of cars. A purely theoretical standard which does not take into consideration all the conditions necessary to meet the requirements

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Let Us Recommend
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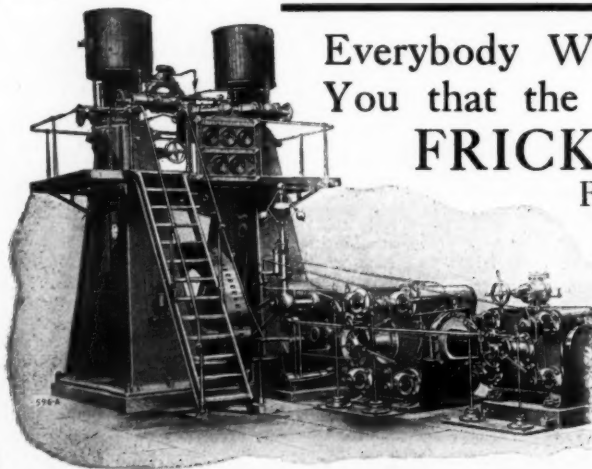
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is made from pure Aqua Ammonia of our own production, thoroughly refined and purified. Send for Free Book.

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BALTIMORE: Joseph S. Wernig Transfer Co.
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CINCINNATI: The Burger Bros. Co.
CLEVELAND: General Cartage & Storage Co., Henry Bollinger.
DETROIT: Riverside Storage & Cartage Co., Newman Bros., Inc.
DALLAS: Oriental Oil Co.
HAVANA: O. B. Cintas.
INDIANAPOLIS: Railroad Transfer Co.
JACKSONVILLE: St. Elmo W. Acosta.
KANSAS CITY: Crutcher Warehouse Co.
LIVERPOOL: Peter R. McQuile & Son.
LOS ANGELES: United Iron Works.
LOUISVILLE: Union Warehouse, 7th and Magnolia Sts.
MILWAUKEE: Central Warehouse.
MEMPHIS: Patterson Transfer Co.

MEXICO, D. F.: Ernst O. Helmsdorf.
NEWARK: Brewers' & Bottlers' Supply Co.
NEW ORLEANS: Chas. F. Banta.
NEW YORK: Roessler & Hasslacher Chemical Co., Shipley Construction & Supply Co.
NORFOLK: Nottingham & Wrenn Co.
OKLAHOMA CITY: O. K. Transfer & Storage Co.
PITTSBURGH: Pennsylvania Transfer Co.
PROVIDENCE: Rhode Island Warehouse Co.
ROCHESTER: Shipley Construction & Supply Co.
SALT LAKE CITY: Utah Soap Co.
ST. LOUIS: Pillsbury-Becker Engineering & Supply Co.
ST. PAUL: R. B. Whitacre & Co.
SAN ANTONIO: Oriental Oil Co.
SAN FRANCISCO: United Iron Works.
SAVANNAH: Benton Transfer Co.
SPOKANE: United Iron Works.
SEATTLE: United Iron Works.
TOLEDO: Moreton Truck & Storage Co.
WASHINGTON: Littlefield, Alvord & Co.

of the shipper would obviously be of little value.

It is well known that one of the main essentials in the construction of a car of this type is the capacity of the ice tanks. The modern car has ice tank capacity ranging from 10,000 to 12,000 pounds of lump ice per car. This capacity seems to meet the traffic requirements and the theoretical refrigeration required for a car of the dimensions described herein. In the construction and capacity of the tanks, the amount of refrigeration required depends upon a two-fold basis: First, refrigeration required to replace the loss through transmission of heat from the exterior. Second, the amount of refrigeration required to quickly cool the contents of the car and to maintain as uniform a temperature as best adapted for the various kinds of produce handled. In the first case, the loss through transmission can only be governed by the thicknesses of the walls and the insulation so that the heat leakage will not exceed 2 B. T. per hour per square foot of surface for one degree difference in temperature Fahrenheit, and the refrigeration for the produce based upon the specific heat at .8 units.

These points are very important in the development of the ice tank and are taken into consideration in detail under the subject of insulation. There are no features in connection with these dimensions which do not meet the traffic requirements of all other loading. I think, therefore, that they may be considered as practically standard dimensions for modern refrigerator car equipment.

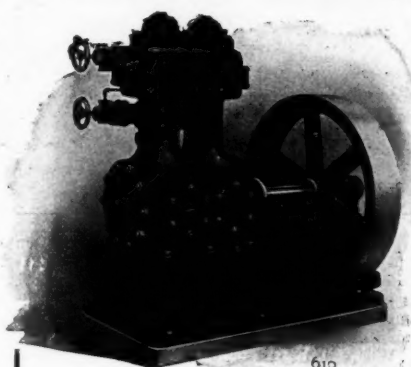
Capacity.

While many of the large railroad systems are continuing the practice of building refrigerator car equipment of the above dimensions with the standard M. C. B. 30-ton capacity trucks, the more generally accepted practice has been to increase the capacity of cars to 40 tons. In a number of instances, cars have been built with capacities ranging from 45 to 50 tons. The average refrigerator load, however, is so much below these capacities that it does not seem advisable to build a car with such large capacity with increased weight for the transportation of light dairy loads.

The average dairy load is considerably under 30,000 pounds and the capacity of the car, therefore, at 30-ton is well within its limit. However, the general railroad equipment of the country has increased so in size and weight and the handling of the equipment has become so rough that it is almost necessary to build a car of larger capacity to stand the general service conditions now in vogue on most of the roads.

In a car built on 40-ton trucks, the weight of the body is so much heavier than the average freight car body that the usual 10 per cent. overload cannot be permitted; and, in the case of a 30-ton refrigerator car with a body of the above dimensions, the loading allowed would be limited to less than 60,000 pounds; and in both cases it is necessary to consider the ice in the capacity of the load.

WATCH PAGE 48 FOR BARGAINS



Get Ready For Next Year

If you are thinking of a new Plant for next season, or contemplate additions to your present equipment, don't wait—place your order early.

We predict an unusual demand for Ice Making and Refrigerating Plants during the coming season—facilities will be taxed to the utmost, and late-comers will suffer by reason of delay.

Get an early start, but be sure you start right. First think of YORK, then ask us to tell you what we have done for others, and what we can do for you.

YORK Plants will do all that we guarantee them to do—that's the kind of plant you want.

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The correct estimated value of A Refrigerator Door and Window—is service

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JONES COLD STORE DOOR CO., HAGERSTOWN, MARYLAND, products combine and recommend to the trained and untrained eye, unexaggerated ability to perform its work and to stand up to its place.

The construction object is in defiance to the

SLAM BANG LABORERS
"DISABLE ME IF YOU CAN"

HINGES AND FASTENERS weigh 60 lbs. to the set.

The doors and Windows work as easily as the front Door on your dwelling.

They will not leak.

Refrigerator Door and Frame and Windows mean shipped complete ready to set in the opening.

We guarantee our "AD" statements.

We believe a big part of our success is due to pleasing our patrons.

We are the sole manufacturers of the "NO EQUAL" DOOR with round jams so popular with the packing trade.

Our Revolving Ice Cream Door is a success for its purpose.

Our Ice Doors and Chutes do all that is required.

Jones Cold Store Door Co.
Hagerstown, Md., U.S.A.

These limits are reached in the various capacity trucks by the M. C. B. rating for the carrying capacity on the axle. It can be readily seen that if the weight of the body increases the load, must in consequence, be decreased.

Insulation.

The efficiency of a refrigerator car, or its preservative features, depends chiefly upon the number of layers of insulation, its quality and thickness, the character of the workmanship in the construction of the car, the sealing of all parts such as side doors, ice plugs and water traps so as to keep the interior temperature even without fluctuation. This efficiency, however, is affected by the ability of the car to withstand the usual wear and tear while in service.

The insulation and ice tank work in connection with a refrigerator car makes it one of the most expensive of the common freight cars which the railroads operate. It cost more to build them, and more to maintain them. In the building of new cars there is a decided tendency toward increased insulation. Cars are being built much heavier and much greater care is given to the selection and amount of insulation used in the construction.

It was formerly considered good practice to use two courses of insulation with four courses of paper, but the design and construction of the later standard refrigerator cars has reached a point where four courses of insulation $\frac{1}{2}$ inch thick are being used with eight and ten courses of high-grade waterproof paper in addition. A decided departure from previous practice has been made with particular reference to the manner, application and increased thickness of the insulated walls together with the all important requirement of keeping the insulation dry. The importance of good insulation is well understood and is the subject that receives the chief consideration in the design of refrigerator cars—efficiency being the main object.

Perfect insulation is practically an impossibility. The manufacturers of insulating material realizing the faults of the material as made in the past have exerted every effort known to science to secure as efficient an insulation as it is possible for them to manufacture. Generally speaking, the success and value of a refrigerator car rest primarily on a two-fold basis:

First: Proper insulation to resist the exterior heat in summer, and to retain the heat

(Continued on page 42.)

SELLING PACKINGHOUSE PRODUCTS.

(Concluded from page 16.)

tention that can be secured from dealers—personal attention, that is,—is also limited.

These two factors constitute a fund, from which profit may be drawn. The fund cannot be overdrawn without undesirable consequences.

The "Fund" at Armour's Disposal.

This strictly limited fund is all that Armour & Company has at its disposal to do business with. It may be entirely used up by one department; it may be used by all departments equally; or it may be used by some, while the others go hungry.

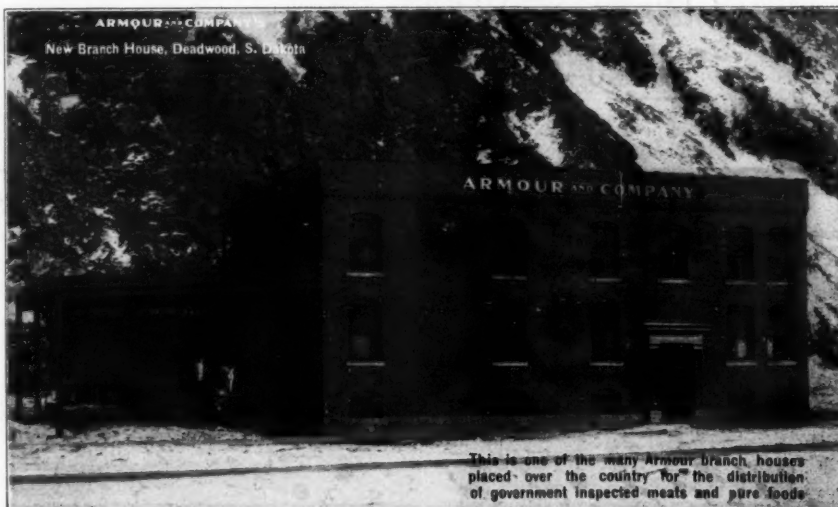
This fund, as I call it, is worth particularizing about. A salesman can exert his selling effort just so many hours a day and so many hours a week. He might perhaps

What Is Expected of Advertising.

We could sell great quantities of any product—grape-juice, to keep to the illustration—without an inch of advertising. But to do it we would be obliged to neglect something else. And there are many of our products that cannot be advertised—such as beef.

There is the nub of our problem.

We demand of advertising not that it increase business, so much as that it will de-



This is one of the many Armour branch houses placed over the country for the distribution of government inspected meats and pure foods.

screw up his enthusiasm a notch or two on some particular occasion, or work more hours one week than another, but in the end there is a dead level of selling effort that this human being can exert, and it is simply impossible to get him to go beyond it.

When a department—lard, for example—calls for extra effort, there is just so much effort left for all the other departments.

On the buying hand, the same thing is true. Take any dealer, as an illustration. He will give our selling talk just so much attention. If we use up an hour of his time this morning, we cannot go back in the afternoon and use another hour. The chances are that we cannot go back the next day—or the next. We cannot risk overworking the dealer's attention.

The dealer has to see a great many people; he has to run his business; he has to sell goods on the floor; he has to listen to kicks over the telephone; he has to eat his meals; he has to watch his books. In short, he will stand just so much selling pressure. If we go beyond that we cripple ourselves with him. Every time our representative makes a sale he draws on his fund of attention with that dealer. Multiply that sale by the efforts of all our men, and the attention fund is depleted proportionately.

crease the cost of selling on products advertised, and consequently lower selling cost on the entire list of Armour products—advertised or not.

Advertising as a developer of business is too well known for comment. But advertising as an agent of economy in sales is something new.

We can advertise grape-juice so that the selling of grape-juice to the dealer is simplified and cheapened. Developing a consumer demand means that instead of the ordinary process of lengthy persuasion, the dealer telephones his order to the branch house, or writes them in voluntarily, or has it ready for the salesman when he calls. No solicitation is necessary.

And when the salesman does not have to solicit the order, but it is solicited by the consumer demand, he acquires a better standing with the dealer. The product does not use up the attention fund. It rather increases it. It enables the salesman to use his welcome selling something that cannot be profitably advertised and which has to be sold by personal effort on the part of the salesman.

This is our real purpose in developing consumer demand.

We look upon our selling power and dealer attention as a fund altogether too valuable to be put on a "help yourself" basis with regard to the department managers. We try to manage it so as to yield the maximum return for the entire institution, not for individual members of that institution.

Instead of employing it to market products by sheer power of salesmanship when we can market them by the printed word, creating consumer demand, we prefer to conserve it and put it to work on problems that have no other solution. We seek to hold the Armour sales organization in reserve for commodities that cannot be marketed except through that organization. We are unwilling to waste a truly marvelous potential, when we can substitute the equally powerful force of consumer demand.

There are tremendous possibilities in this principle of advertising as yet untouched. But that the principle itself is sound there can be no reason to doubt.

There are plenty of men out of employment, but a good packinghouse man need never be idle if he makes use of the "Wanted" department of The National Provisioner.



PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the barrel, except lard, which is quoted by the hundredweight in tierces, pork and beef by the barrel or tierce and hogs by the hundredweight.

Futures Firmer—Trade More Active—Distribution of Product Maintained—Hog Receipts Still Good—Quality Fair—Feed Conditions Excellent.

The movement of provision values during the week has been moderately upward, and this improvement in values has brought some increase in speculative interest in the market, although there has been no general speculation. The improvement in values has come in part through the absence of pressure, and the general hardening in hog values, and a lack of pressure of product. Stocks of product are not large, and naturally with the movement of hogs of not burdensome proportions, and hog values firm, futures have been readily influenced by these developments.

The situation is practically unchanged in its general bearing. The small stocks of product, and the fact that notwithstanding the prices, distribution has taken care of the output this month, resulting in rather limited increase in new product the first two weeks, and a considerable decrease in old product, shows an encouraging situation as to demand which does not speak for lower prices, but rather for maintained or improving values in the absence of a burdensome hog movement.

As to the hog movement, the developments

are not such as to show any material pressure from the country, nevertheless the receipts are excellent. The receipts at leading points for the past week were 580,000, compared with 537,000 the preceding week, and 564,000 last year. This movement is liberal enough to cause some apprehension that there will be no material let-up in the receipts later in the winter, and these receipts tend to keep speculative buyers out of the market, while the confidence on the other hand that the movement is only at the expense of supplies later on, tends to make the situation a very interesting one.

A factor which has entered into the situation to some extent, is the general business situation, and the possibilities of an increase in the number of idle men this winter on account of business conditions. The recent business developments have not been very encouraging in this respect. There has been some labor trouble, and evidence of unsatisfactory business conditions resulting in the laying off of employees. Recently a statement was made by a rather close observer of business conditions that there was a possibility of a million idle men before next spring. On the other hand, it is stated that the Steel company has given instructions to its managers to find some work if possible for the

men laid off from the active departments so as to prevent if possible an increase in the number of unemployed.

The conditions in the textile trade, both in this country and in Europe, are somewhat unsatisfactory, and with the uncertainty as to monetary legislation, the Mexican situation, the policy to be pursued in Congress this winter as to further legislation on the question of trusts, and the effects of the tariff bill together, all tend to create conditions which are in themselves disconcerting, and tend to bring about conservative feeling. The position of monetary interests is very conservative, which also is a factor of importance.

While the distribution of product as shown by the stock statements has been very good, still the complaints seem to be that the distribution is in the way of small orders, dealers showing a cautious position and unwilling to make considerable contracts ahead owing to the uncertainty as to the winter developments.

The feed stuff situation continues very satisfactory with the end of the fall here. The weather continues open, so that live stock is in the field, and as yet there has been very little in the way of feeding excepting for the purpose of finishing stock for market. Such conditions tend to con-

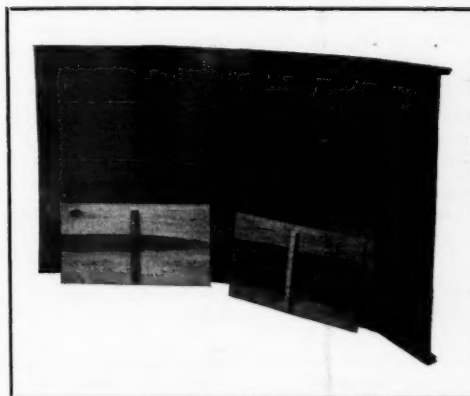
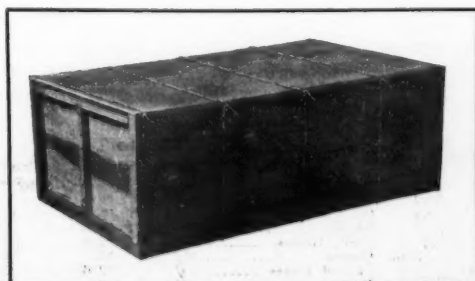
The Packers' Problem

is to

SAVE BOX WEIGHT

Our Solution—WIRE BOUND BOXES

Our customers are saving from 30-50% in weight over the old style nailed box and have proven by test that *you can save 15-20% on the Gross Weight of your shipments.*



WHAT WOULD BE YOUR SAVING PER YEAR?

Let us figure on your requirements

CHICAGO MILL AND LUMBER COMPANY

Wire Bound Dep't.

Chicago

serve the short supply of feed stuffs of the summer, and the developments this fall have very materially added to the available amounts of feeds throughout the entire country.

A rather interesting development took place this week, not so much in its influence on the general question of feed stuffs, but as to its possible bearing on the importations of feed stuffs, and possibly of meats from the Argentine. It developed on the Produce Exchange that already there was an embargo against the importation of hay, straw, bran and grits from the Argentine on account of the general prevalence of the foot and mouth disease in that country, and there was apprehension that it might apply to the importation of grain.

Provision men were considerably interested in the reports on the ground that if the development of the foot and mouth disease in the Argentine was such as to render the importation of grain inadvisable, it might be prevalent enough to affect the importation of meats and animal products, and would therefore be a factor to be considered in its bearing upon American values.

Hog packing for the week ending November 22 was reported at 720,000, against 632,000 the previous week and 575,000 last year; since November 1, 1,934,000 indicated against 1,290,000 last year.

LARD.—The market is steady for all grades. Export trade has been rather quiet and local demand has not been active. City steam, 10½¢; Middle West, \$10.90@11; Western, \$11.05; refined, Continent, \$11.65; South American, \$12.30; Brazil, kegs, \$13.30; compound lard, 88½¢@87½¢.

PORK.—The market continues firm with the position of Western markets, but trade is rather quiet. Mess is quoted \$23.25@23.75; clear, \$20.25@22; family, \$24.50@27.

BEEF.—Trade continues quiet, with prices showing a very firm tone on small supplies. Family, \$19@20; mess, \$17.75@18.75; packet, \$18@19; extra India mess, \$28@30.

SEE PAGE 39 FOR LATER MARKETS.

EXPORTS OF HOG PRODUCTS.

Exports of hog products from New York reported up to Wednesday, November 26, 1913:

BACON.—Antwerp, Belgium, 89,000 lbs.; Abo, Russia, 12,899 lbs.; Colon, Panama, 8,940 lbs.; Glasgow, Scotland, 284,175 lbs.; Havana, Cuba, 28,021 lbs.; Hamilton, W. I., 1,751 lbs.; Hull, England, 120,726 lbs.; Liverpool, England, 851,130 lbs.; London, England, 11,874

lbs.; Marseilles, France, 6,005 lbs.; Newcastle, England, 2,800 lbs.; Rotterdam, Holland, 14,950 lbs.; Stockholm, Sweden, 25,544 lbs.; St. Johns, N. F., 2,200 lbs.; Santiago, Cuba, 13,994 lbs.; Trieste, Austria, 15,048 lbs.; Tampico, Mexico, 871 lbs.

HAMS.—Amsterdam, Holland, 16,421 lbs.; Antwerp, Belgium, 30,875 lbs.; Amapola, Honduras, 924 lbs.; Cartagena, Colombia, 781 lbs.; Colon, Panama, 2,226 lbs.; Demerara, British Guiana, 12,264 lbs.; Guadeloupe, W. I., 3,877 lbs.; Glasgow, Scotland, 613,370 lbs.; Havana, Cuba, 7,277 lbs.; Hamilton, W. I., 9,321 lbs.; Hull, England, 174,658 lbs.; Kingston, W. I., 2,310 lbs.; La Guaira, Venezuela, 13,483 lbs.; Liverpool, England, 497,516 lbs.; London, England, 27,084 lbs.; Macoris, S. D., 9,341 lbs.; Nassau, W. I., 5,787 lbs.; Paramaribo, Dutch Guiana, 10,602 lbs.; Progreso, Mexico, 1,185 lbs.; Port au Prince, W. I., 1,767 lbs.; St. Lucia, Africa, 826 lbs.; St. Thomas, W. I., 835 lbs.; St. Johns, N. F., 8,050 lbs.; Santiago, Cuba, 5,213 lbs.; Southampton, England, 51,450 lbs.; Tumaco, Colombia, 774 lbs.; Turks Island, W. I., 9,524 lbs.

LARD.—Antofagasta, Chile, 2,568 lbs.; Amsterdam, Holland, 26,489 lbs.; Antwerp, Belgium, 214,150 lbs.; Aberdeen, Scotland, 10,966 lbs.; Belize, British Honduras, 6,350 lbs.; Bordeaux, France, 509,096 lbs.; Buenaventura, Colombia, 7,357 lbs.; Bremen, Germany, 50,700 lbs.; Barbados, W. I., 13,200 lbs.; Cartagena, Colombia, 6,324 lbs.; Colon, Panama, 34,919 lbs.; Curacao, Leeward Islands, 6,464 lbs.; Demerara, British Guiana, 8,524 lbs.; Dantzig, Germany, 76,850 lbs.; Glasgow, Scotland, 320,369 lbs.; Guadeloupe, W. I., 3,300 lbs.; Guayaquil, Ecuador, 3,100 lbs.; Hull, England, 351,490 lbs.; Hamilton, W. I., 3,017 lbs.; Havana, Cuba, 69,496 lbs.; Hamburg, Germany, 757,601 lbs.; Koenigsberg, Germany, 78,251 lbs.; Kingston, W. I., 4,060 lbs.; Kribi, —, 1,960 lbs.; Lagos, Spain, 15,750 lbs.; Leith, Scotland, 41,751 lbs.; Liverpool, England, 479,125 lbs.; London, England, 224,620 lbs.; Macoris, S. D., 57,985 lbs.; Messina, Sicily, 5,000 lbs.; Marseilles, France, 26,965 lbs.; Mombasa, Africa, 900 lbs.; Nassau, W. I., 20,148 lbs.; Naples, Italy, 18,800 lbs.; Newcastle, England, 1,775 lbs.; Port au Prince, W. I., 52,227 lbs.; Progreso, Mexico, 12,321 lbs.; Rotterdam, Holland, 528,719 lbs.; St. Lucia, Africa, 13,429 lbs.; St. Thomas, W. I., 9,549 lbs.; St. Johns, N. F., 41,347 lbs.; Santiago, Cuba, 7,218 lbs.; Southampton, England, 124,200 lbs.; Trieste, Austria, 62,700 lbs.; Tumaco, Colombia, 13,226 lbs.; Tunis, Algeria, 8,800 lbs.; Turks Island, W. I., 2,262 lbs.; Vera Cruz, Mexico, 23,288 lbs.

LARD OIL.—Hamburg, Germany, 110 lbs. PORK.—Barbados, W. I., 85 bbls.; Cayenne, French Guiana, 25 bbls.; Demerara, British Guiana, 141 bbls., 10 tcs.; Guadeloupe,

W. I., 16 bbls.; Glasgow, Scotland, 100 bbls.; Hamilton, W. I., 8 bbls.; Havre, France, 25 bbls.; Halifax, N. S., 50 bbls.; Kingston, W. I., 32 bbls.; Lagos, Spain, 15 bbls.; Liverpool, England, 20 bbls.; London, England, 25 bbls.; Macoris, S. D., 13 bbls.; Nassau, W. I., 64 bbls.; Paramaribo, Dutch Guiana, 394 bbls.; Port au Prince, W. I., 89 bbls.; St. Thomas, W. I., 18 bbls.; St. Johns, N. F., 1,770 bbls.; Trinidad, W. I., 353 bbls.; Turks Island, W. I., 6 bbls.

SAUSAGE.—Colon, Panama, 84 bbs.; Glasgow, Scotland, 70 pa.; Hamilton, W. I., 14 pkgs.

FOREIGN COMMERCIAL EXCHANGE.

New York, November 28.—Foreign commercial exchange rates were quoted today as follows:

London—			
Bankers' 60 days.....	4.81	@ 4.81½	
Demand sterling.....	4.8530	@ 4.8535	
Commercial, sight.....	4.85	@ 4.85½	
Paris—			
Commercial, 90 days....	5.26½	—1.16@5.26½—1.32	
Commercial, 60 days....	5.25	3.32 @5.25 1-16	
Commercial, sight.....	5.21½	@5.21½—1-16	
Berlin—			
Commercial, 90 days....	93½	@ 93 9-16	
Commercial, 60 days....	93½	@ 93 13-16	
Commercial, sight.....	94½	@ 94 9-16	
Antwerp—			
Commercial, 60 days....	5.29%	@ 5.29%+1-16	
Amsterdam—			
Commercial, 60 days....	30%	@ 30%+1-32	

EXPORTS OF PROVISIONS

Exports of hog products for the week ending November 22, 1913, with comparative tables:

PORK, BBLs.			
To—	Week ending Nov. 22, 1913.	Week ending Nov. 24, 1912.	From Nov. 1, '13, to Nov. 22, 1913.
United Kingdom..	396	205	526
Continent.....	157	125	344
So. & Cen. Am..	302	240	769
West Indies.....	601	511	1,130
Br. No. Am. Col.	395	103	1,628
Other countries..	.....	.....	10
Total.....	1,913	1,484	5,206
MEATS, LBS.			
United Kingdom..	6,264,750	4,190,275	16,077,950
Continent.....	725,550	685,875	1,392,306
So. & Cen. Am..	46,000	170,225	230,675
West Indies.....	110,175	234,475	306,700
Br. No. Am. Col.	11,600	.....	13,000
Other countries..	.....	53,400	.....
Total.....	7,158,075	5,333,250	18,820,625
LARD, LBS.			
United Kingdom..	5,225,100	3,330,025	14,775,320
Continent.....	5,828,042	4,638,950	11,345,328
So. & Cen. Am..	107,742	1,035,050	858,438
West Indies.....	237,700	564,500	1,707,330
Br. No. Am. Col.	951	4,340	112,681
Other countries..	.....	53,300	60,850
Total.....	11,389,565	9,828,215	28,859,447

RECAPITULATION OF THE WEEK'S EXPORTS.

	Pork, bbls.	Meats, lbs.	Lard, lbs.
New York.....	1,505	5,078,700	6,346,274
Boston.....	138	34,125	140,141
Philadelphia.....	20	.....	175,000
Baltimore.....	.....	26,250	1,401,150
New Orleans.....	160	51,000	218,000
Montreal.....	.....	1,968,000	3,021,000
Halifax.....	.....	.....	88,000
Total week.....	1,913	7,158,075	11,389,565
Previous week....	1,405	5,407,475	9,774,826
Two weeks ago....	1,888	5,455,075	7,605,058
Cor. week last y'r	1,484	5,333,250	9,828,215

COMPARATIVE SUMMARY OF EXPORTS.

	From Nov. 1, '13, to Nov. 22, '13.	Same time last year.	Changes.
Pork, lbs.....	1,641,200	1,605,800	Dec. 564,600
Meats, lbs.....	18,020,625	15,323,450	Inc. 2,697,175
Lard, lbs.....	28,859,447	20,258,380	Inc. 8,601,068

OCEAN FREIGHTS.

	Liverpool, Per Ton.	Glasgow, Per Ton.	Hamburg, Per 100 lbs.
Beef, per tierce.....	20/	22/6	@ 32c.
Oil Cakes.....	14c.	17c.	@ 20c.
Bacon.....	20/	22/6	@ 32c.
Lard, tierces.....	20/	22/6	@ 32c.
Cheese.....	25/	30/	@ 36c.
Canned meats.....	20/	22/6	@ 32c.
Butter.....	20/	20/	@ 32c.
Tallow.....	20/	22/6	@ 32c.
Pork, per barrel.....	20/	22/6	@ 32c.

EXPORTS SHOWN BY STEAMERS.

Exports of commodities from New York to foreign ports for the week ending Thursday, November 20, 1913, as shown by Williams & Terhune's report, are as follows:

Steamer and Destination.	Oil Cakes.	Cotton seed.	Race and Butter.	Hams.	Tallow.	Beef.	Pork.	Lard.
	Bags.	Bbls.	Pkgs.	Boxes.	Pkgs.	Pkgs.	Bbls.	Tcs. and Pkgs.
Caronia, Liverpool.....	2040	460	.....	621	.....	25	.....	328 2420
Bovic, Liverpool.....	7177	.....	.....	.....	.....	.....	.....	.....
Mauretania, Liverpool.....	300	.....	.....	912	.....	75	.....	325 600
Cedric, Liverpool.....	500	.....	.....	3745	.....	135	285	419 1225
Minewaska, London.....	750	.....	.....	155	.....	.....	.....	5848
Olympic, Southampton.....	.....	.....	.....	294	.....	.....	.....	225 1575
Marengo, Hull.....	100	.....	.....	668	.....	50	5	1735 7733
Exeter City, Bristol.....	.....	.....	.....	10	.....	50	.....	784
Cameronia, Glasgow.....	.....	.....	.....	885	.....	25	.....	29 850
Pretoria, Hamburg.....	400	.....	.....	100	.....	250	25	2275 6100
Prinz Friedrich Wil., Bremen.....	.....	.....	.....	.....	.....	.....	.....	600
Trojan, Rotterdam.....	4598	.....	.....	.....	.....	.....	.....	.....
Ryndam, Rotterdam.....	3634	674	.....	.....	.....	.....	.....	370 4605
Hellig Olav, Baltic.....	.....	425	.....	490	.....	50	1585	7962
Bergensfjord, Baltic.....	.....	210	.....	35	.....	.....	.....	80
Vaderland, Antwerp.....	10010	.....	.....	322	.....	40	82	358 7860
Rochambeau, Havre.....	2050	940	.....	.....	.....	12	25	225
Luigi, Marseilles.....	232	.....	.....	.....	.....	.....	.....	.....
Cleveland, Mediterranean.....	.....	.....	.....	125	.....	.....	70	850
Re d'Italia, Mediterranean.....	.....	.....	.....	.....	.....	.....	100	50
Prinzess Irene, Mediterranean.....	1505	.....	.....	190	.....	.....	15	250
River Araxes, Mediterranean.....	100	.....	.....	.....	.....	.....	.....	.....
Franconia, Mediterranean.....	200	.....	.....	15	.....	.....	.....	.....
Total.....	29741	6573	.....	8567	.....	650	450	7939 49537

TALLOW, STEARINE, GREASE and SOAP

WEEKLY REVIEW

TALLOW.—The undertone to the tallow market is generally admitted to be firm, and in some quarters there are intimations made of impending price advances. No important buying movement is apparent, but it becomes evident at intervals that holders of tallow are not easily disturbed, and when buyers need stuff, they are forced to accept the views of these holders. A factor during the week was the realization that at the west a strong tone was prevailing. Correspondence from western points was to the effect that much of the stuff which has recently been overhanging the market has been absorbed, and consumers in general had failed to replenish their stocks. At the same time, no perpendicular upward movement is predicted, and it is believed that the conservative policy of buyers in taking short time requirements will remain unaltered. Foreign bids in this market were not considered as pointing to an immediate revival of business. Offers on low grades have been asked for, but actual sales were small. Prime city tallow was quoted at 6½¢ and city specials at 7½¢.

OLEO STEARINE.—Although the inquiry diminished during the week, with claims that the urgent wants of the compound lard trade had been supplied, the undertone to the oleo stearine market remained firm. Holders were not inclined to sell much. The market was quoted at 10½¢ bid.

SEE PAGE 39 FOR LATER MARKETS.

COCOANUT OIL.—The market is firmly held abroad, with a fair demand and rather moderate supplies. Prices here are firmly held with rather light trade. Cochin, 13½¢; December arrival, 13¢; Ceylon, 10¼¢@11¢; shipment, 10½¢@11½¢.

CORN OIL.—Prices have shown very little change during the week, with trade quiet. Prices are quoted at \$6.60@6.70 in car lots.

SOYA BEAN OIL.—The market is steady, with a rather quiet trade. Spot is quoted at 6¼¢@7¢.

PALM OIL.—The position of the market continues very steady. Foreign markets are reported firm or a little higher, with quite good demand and rather moderate arrivals. Offerings for shipment are firmly held. Prime red spot, 6¾¢@7¢; do., to arrive, 6¾¢; Lagos, spot, 7¼¢; to arrive, 7¼¢; palm kernel, 10½¢@10¾¢; shipment, 10¾¢.

NEATSFOOT OIL.—Prices are steady, with a fair jobbing business. For 20 cold

test, 96@98¢; 30 do., 88¢; 40 do., water white, —; prime, 65@66¢; low grade, off yellow, 62¢.

OLEO OIL.—The market has continued quiet but steady, with moderate demand for forward shipment. Extras are quoted at New York at 10¼¢@10¾¢, and 60 florins at Rotterdam.

GREASE.—Prices show a firm tone and good grades are quoted at a slight advance. Quotations are nominal, as follows: Yellow, 5¼¢@6¼¢; bone, 5½¢@6¼¢; house, 5¼¢@6¼¢.

EXPORTS OF BEEF PRODUCTS.

Exports of beef products from New York reported up to Wednesday, November 26, 1913:

BEEF.—Antwerp, Belgium, 65 bbls.; Barbados, W. I., 77 bbls.; Colon, Panama, 70 bbls.; Demerara, British Guiana, 86 bbls.; Guadeloupe, W. I., 341 bbls.; Glasgow, Scotland, 200 tes.; Hamburg, Germany, 100 bbls.; Hamilton, W. I., 19 bbls.; Halifax, N. S., 230 bbls.; Hull, England, 25 tes.; Kingston, W. I., 65 bbls.; Liverpool, England, 125 tes.; London, England, 25 tes.; Nassau, W. I., 38 bbls.; Port au Prince, W. I., 53 bbls.; Paramaribo, Dutch Guiana, 305 bbls.; Rotterdam, Holland, 25 bbls.; Southampton, England, 41,000 lbs.; St. Thomas, W. I., 3 bbls.; St. Lucia, Africa, 26 tes.; St. Johns, N. F., 1,234 bbls.; Trieste, Austria, 10 bbls.; Trinidad, W. I., 71 bbls., 75 tes.; Turks Island, W. I., 7½ bbls.

FRESH MEAT.—Colon, Panama, 379,285 lbs.; Hamilton, W. I., 55,354 lbs.; Liverpool, England, 68,115 lbs.

OLEO OIL.—Antwerp, Belgium, 55 tes.; Constantinople, Turkey, 75 tes.; Glasgow, Scotland, 95 tes.; Hamburg, Germany, 125 tes.; Liverpool, England, 115 tes.; London, England, 25 tes.; Rotterdam, Holland, 2,520 tes.; St. Johns, N. F., 50 tes.

OLEOMARGARINE.—Belize, British Honduras, 1,500 lbs.; Barbados, W. I., 7,500 lbs.; Colon, Panama, 2,640 lbs.; Curacao, Leeward Islands, 1,082 lbs.; Guadeloupe, W. I., 400 lbs.; Nassau, W. I., 3,500 lbs.; Port au Prince, W. I., 2,100 lbs.; St. Lucia, Africa, 22,090 lbs.; St. Thomas, W. I., 9,110 lbs.

TALLOW.—Hamburg, Germany, 25,508 lbs.; Macoris, S. D., 2,042 lbs.

TONGUE.—Liverpool, England, 190 pa.; Paramaribo, Dutch Guiana, 3 bbls.

CANNED MEAT.—Antwerp, Belgium, 45 cs.; Bordeaux, France, 50 cs.; Colon, Panama, 204 cs.; Demerara, British Guiana, 95 cs.; Glasgow, Scotland, 400 cs.; Hull, England, 330 cs.; Havre, France, 100 pa.; La Guaira, Venezuela, 16 pa.; Liverpool, England, 65 pa.; London, England, 881 cs.; Nassau, W. I., 90 cs.; Newcastle, England, 100 cs.; Paramaribo, Dutch Guiana, 135 cs.; St. Thomas, W. I., 43 cs.; Tampico, Mexico, 39 pa.

IMPORTS OF FRESH BEEF.

Imports of fresh beef into the port of New York during the past week totaled 2,137 quarters, compared to 5,790 quarters last week, and 6,381 quarters two weeks ago. Last week's arrivals included 2,050 quarters of chilled and 3,740 frozen; this week's were 2,000 chilled and 137 frozen. All of this week's arrivals came via London and Liverpool, all of the frozen beef being from Australia, and the chilled from Argentina.

LIVESTOCK AND BEEF EXPORTS.

Exports of livestock and dressed beef from United States and Canadian ports for the week ending November 22, 1913, are reported by Williams & Terhune as follows:

Port.	Cattle.	Sheep.	Beef.
From New York.....	—	—	—
From Boston.....	—	—	—
From Philadelphia.....	—	—	—
From Baltimore.....	—	—	—
From Montreal.....	—	—	—
Total.....	—	—	—
Total last week.....	—	—	—

CHEMICALS AND SOAP SUPPLIES.

(Special Report to The National Provisioner.)

New York, November 27.—Latest quotations on chemicals and soap makers' supplies are as follows: 74@76 per cent. caustic soda, \$1.55@1.65 basis 60 per cent.; 60 per cent. caustic soda, \$1.80 per 100 lbs.; 98 per cent. powdered caustic soda in bbls, 2½¢@2¼¢. per lb.; 58 per cent. soda ash, 80¢. per 100 lbs. 48 per cent. carbonate soda ash, 95¢. per 100 lbs.; talc, 1¼¢@1½¢. per lb.; sillex, \$15@20 per ton of 2,000 lbs.; marble flour, \$8 per ton of 2,000 lbs.; silicate of soda, 90¢. per 100 lbs.; chloride of lime in casks, 1¼¢. and in barrels 2¢. per lb.; carbonate of potash, 4@4¼¢. per lb.; electrolytic caustic potash, 4½¢@4¾¢. per lb.

Prime palm oil in casks, 6¼¢@7¢. per lb.; genuine Lagos palm oil in casks, 7¼¢. per lb.; clarified palm oil in bbls., 7¼¢. per lb.; palm kernel oil in casks 10½¢@10¾¢. per lb.; green olive oil, 76¢. per gal.; yellow olive oil, 83@86¢. per gal.; green olive oil foots, 7¼¢@8¢. per lb.; Ceylon coconut oil, 10½¢@10¾¢. per lb.; Cochin coconut oil, 13¼¢@13½¢. per lb.; cottonseed oil, 7.20@7.40¢. per lb.; corn oil, 6.60@6.75¢. per lb.; Soya bean oil, 6½¢. per lb.

Prime city tallow, 6½¢. per lb.; house grease, 6@6¼¢. per lb.; brown grease, 5¼¢@6¢. per lb.; yellow packer's grease, 5¼¢@6¢. per lb.

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COTTON OIL CABLE MARKETS

Hamburg.

(By Cable to The National Provisioner.)

Hamburg, November 28.—Market easy. Quotations: Choice summer white oil, 75 marks; butter oil, 75 marks; summer yellow, 68½ marks.

Rotterdam.

(By Cable to The National Provisioner.)

Rotterdam, November 28.—Market firm. Quotations: Summer yellow, 40½ florins; choice summer white, 44 florins, and butter oil, 43½ florins.

Antwerp.

(By Cable to The National Provisioner.)

Antwerp, November 28.—Market firm. Quotations: Summer yellow, 84¼ francs.

Marseilles.

(By Cable to The National Provisioner.)

Marseilles, November 28.—Market firm. Quotations: Prime summer yellow, 86¼ francs; prime winter yellow, 92¼ francs; choice summer white oil, 93 francs.

Liverpool.

(By Cable to The National Provisioner.)

Liverpool, November 28.—Market easy. Quotations: Prime summer yellow, 34½s.; summer yellow, 34½s.

SOUTHERN MARKETS

Atlanta.

(Special Wire to The National Provisioner.)

Atlanta, Ga., November 28.—Crude cottonseed oil steady at 45¢. Meal easier at \$26.50 @27, f. o. b. mills. Hulls, \$10, Atlanta, loose.

Dallas.

(Special Wire to The National Provisioner.)

Dallas, Tex., November 26.—Some trading in cottonseed oil every day in limited quantities; 44c. basis prime, 46½c. prime. Choice loose cake, \$29 per short ton, f. o. b. Galveston; prime cake, \$27.50.

CHICAGO FERTILIZER MARKET.

(Special Letter to The National Provisioner from The Davidson Commission Co.)

Chicago, November 26.—The market for animal ammoniates shows more activity this week, and considerable trading has been done in blood at \$3.25 per unit for prompt and December shipment, and also at \$3.30 for January, with producers fairly well sold up at this price. Tankage has ruled quiet at \$3.07½ and 10c. for prompt and December; 5c. per unit monthly advance for later deliveries, with several of the largest producers sold up and unwilling to offer further lots, as they are expecting higher prices in late December and January, when they will no doubt come into the market with their current production. Concentrated tankage and hoof meal are both scarce and show some little advance in price, now quotable around \$2.90 for concentrated and \$2.95@3 for hoof meal.

Lower grade tankage is quiet but firmly held at unchanged prices. Outside packers' tankage is selling slowly, as offerings are limited, most of the producers having contracted their supplies for six months or a year ahead. (Complete quotations may be found on page 37.)

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COTTONSEED OIL EXPORTS.

Official government reports show exports of cottonseed oil for the month of October amounting to 29,878 bbls., compared to 38,810 bbls. a year ago. For the ten months of the calendar year the government reports exports of 525,092 bbls., compared to 685,708 bbls. for a like period of 1912.

SOYA BEANS IN SOUTH AFRICA.

A large firm of English soap makers is distributing soya-bean seed in South Africa, with literature relating to its cultivation, writes Commercial Agent Erwin W. Thompson. The Government experimental farms in South Africa are taking much interest in the subject, having already tested over 80 varieties, some of them yielding as much as 2,000 pounds of beans and 12 to 13 tons of green fodder to the acre. The right kind of harvesting machinery is not yet available, the ordinary mowing machines not being satisfactory except for certain erect-growing varieties.

Beans grown in South Africa yield 20 to 22 per cent. of oil, as against 15 to 16.5 per cent. for the same varieties grown in Manchuria. Altitude seems to affect the yield of oil, as shown by the following statistics: Beans grown at an altitude of 3,354 feet yield 20.65 per cent.; at 500 feet, 21.36 per cent., and at 49 feet, 22.19 per cent.

The following comparison is made between the cost of transporting soya beans to England from Manchuria and from South Africa: Cost of bags and freight from Harbin to Vladivostok, \$8.03 per long ton; freight from Vladivostok to England, \$7.30; total, \$15.33 per long ton. Cost in South Africa

of transportation to the coast, \$3.04; ocean freight to England, \$4.02; total, \$7.06. There is thus an advantage of \$8.27 per long ton in cost of transportation in favor of the South African beans.

GREEN AND SWEET PICKLED MEATS.
(Special Report to The National Provisioner from the Davidson Commission Co.)

Chicago, November 26.—Quotations on green and sweet pickled meats, f. o. b. Chicago, loose.

Regular Hams—Green, 8@10 lbs. ave., 12½@12¾c.; 10@12 lbs. ave., 12½@12½c.; 12@14 lbs. ave., 12¼@12¾c.; 14@16 lbs. ave., 12½@12¾c.; 18@20 lbs. ave., 12½@12¼c. Sweet pickled, 8@10 lbs. ave., 13¼@13½c.; 10@12 lbs. ave., 12½@13c.; 12@14 lbs. ave., 12¾@12¾c.; 14@16 lbs. ave., 12¾@12¾c.; 18@20 lbs. ave., 12½@12¾c.

Skinned Hams—Green, 14@16 lbs. ave., 13¼@13¾c.; 16@18 lbs. ave., 13¼@13¾c.; 18@20 lbs. ave., 13¼@13¾c.; 22@24 lbs. ave., 12¾@12¾c. Sweet pickled, 14@16 lbs. ave., 13@13¾c.; 16@18 lbs. ave., 12¾@12¾c.; 18@20 lbs. ave., 12¾@12¾c.; 22@24 lbs. ave., 12¼@12¾c.

New York Shoulders—Green, 10@12 lbs. ave., 11½c. Sweet pickled, 10@12 lbs. ave., 11¼@11½c.

Picnic Hams—Green, 5@6 lbs. ave., 10½@11c.; 6@8 lbs. ave., 10½@10¾c.; 8@10 lbs. ave., 10½@10¾c.; 10@12 lbs. ave., 10¾@10¾c. Sweet pickled, 5@6 lbs. ave., 11@11½c.; 6@8 lbs. ave., 10½@10¾c.; 8@10 lbs. ave., 10½@10¾c.; 10@12 lbs. ave., 10¾@10¾c.

Clear Bellies—Green, 6@8 lbs. ave., 15¼@15½c.; 8@10 lbs. ave., 14½@14¾c.; 10@12 lbs. ave., 13¾@14c.; 12@14 lbs. ave., 13¼@13½c. Sweet pickled, 6@8 lbs. ave., 14½@14¾c.; 8@10 lbs. ave., 14@14¼c.; 10@12 lbs. ave., 13¾@13¾c.; 12@14 lbs. ave., 13¾@13½c.

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STEARINES - OILS - TALLOW - GREASE - FERTILIZER MATERIALS

COTTONSEED OIL

WEEKLY REVIEW

THE NATIONAL PROVISIONER is official Organ of the Interstate Cottonseed Crushers' Association, the Texas Cottonseed Crushers' Association, South Carolina Cottonseed Crushers' Association, the Georgia Cottonseed Crushers' Association, and the Mississippi Cottonseed Crushers' Association.

Market Quiet—Prices Steady—Crude Offerings Well Taken—Seed Prices High—Lard Without New Feature—Cotton Crop Estimates Enlarged.

Several factors have combined to actually intensify the dullness that has recently prevailed in the local cottonseed oil future market. The breaking of the week by the Thanksgiving holiday was against any change in activity, while the advent of the year end also militates against business. Other elements that can be mentioned are the prevailing prices of cottonseed oil, which are generally thought to be above an average, and the conservative attitude of business interests in general. However, it is hardly fair to say that the entire cottonseed oil industry is in a dormant state, even though the fluctuations in the contract market are almost indicative of this.

Frequently southern advices are received telling of fair trades in crude oil, and seed is constantly passing from first hands to mills. Likewise, all of the crude oil being crushed is not being held, so that there must be a certain percentage of actual business passing. However, the unimportant price changes suggest that a very cautious policy is being followed on all sides, and that con-

sumers are not taking more oil than they need, while mills have not as yet found themselves burdened with supplies to necessitate the granting of substantial concessions. Speculation, admittedly, is perfunctory.

Foreign demand for cotton oil is routine, and it continues to be confined to the better grades. Shipments since the beginning of the season have been disappointing, and estimates as to the probable exports this season are being reduced. Some of the authorities at this early date venture the opinion that not much over 500,000 barrels will go abroad, although it is realized that if the market remains steady, or declines moderately, a decided stimulus to the export business may develop.

Much surprise is still expressed because of the maintenance of crude values. It is again asserted in some circles that a break is imminent, and that with the new year coming, consumers will be indisposed to swell their inventories by taking on more stuff, while mills may be somewhat more anxious to realize on their holdings. Thus far, reiterated predictions of crude oil liquidation have not materialized to a noteworthy degree, and it is evident that there are a great many in the trade who express very pessimistic views

as to the levels of cotton oil, but who concede that a break of from $\frac{1}{4}$ c. to $\frac{1}{2}$ c. per pound would place the market on a healthy basis.

Holders of actual oil, and of contracts, have been encouraged of late because of the firmness of spot oil. Carrying charges in the New York future market have narrowed, and the deliveries on contracts have been light, considering the season of the year. It was the consensus of opinion that these factors reflected the insistent buying by compound lard makers, who still seemed to be benefiting by the ruling quotations of pure lard. Thus, the claim is made that it is not necessary for hog product prices at the west to advance in order that compound lard will sell in large volume, and cottonseed oil be consumed more readily. The inference is that so long as no decline of importance occurs in the quotations for hog products, the consumption of cotton oil will not be seriously jeopardized.

Much is still heard concerning the prices for cottonseed oil this year as compared with last season, it being continually emphasized that a year ago stuff could be had about a cent a pound lower. A comparison shows that prime summer yellow spot oil com-

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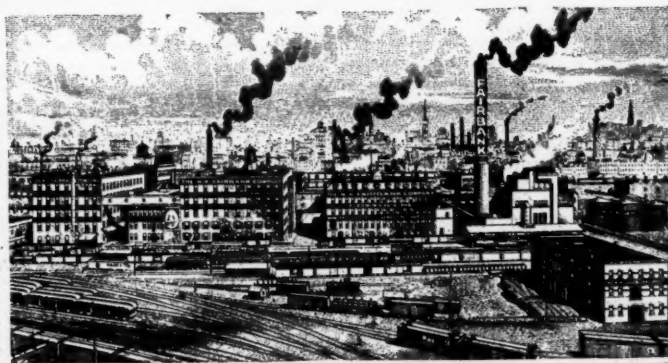
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manded 63 $\frac{3}{4}$ c. per pound, basis New York, on December 1, 1912, against about 7c. at present. In this connection, it has been pointed out that in the spring and summer of last season, a scarcity of cotton oil supplies was developing, and much higher prices ruled toward the close of that season. During those months, as at present, the consuming demand was almost entirely from edible sources.

With the progress of ginning operations, estimates as to the cotton production have tended upward, but there has not been any marked revision of views. The most popular guesses seem to centre around 14,400,000 bales, including linters, suggesting about 13,800,000 bales of seed cotton, a quantity about the same as that reported last year. This figure is accepted in many local oil quarters, but when available oil supplies are being calculated upon the absence of a carry-over at the beginning of this season has to be allowed for. Roughly, this would make a difference of about 200,000 barrels. On the other hand, the seed crush may be somewhat larger, as \$30 per ton has been paid during the last few weeks. As far as the crush from the seed is concerned, the reports are quite conflicting.

Closing prices, Saturday, November 26, 1913.—Spot, \$7.05@7.15; November, \$7.04@7.13; December, \$7.10@7.11; January, \$7.13@7.15; February, \$7.18@7.20; March, \$7.25@7.27; April, \$7.29@7.33; May, \$7.37@7.38; July, \$7.46@7.47. Futures closed unchanged to 5 decline. Sales were: November, 800, \$7.10; December, 200, \$7.14; February, 100, \$7.26; April, 200, \$7.38; July, 200, \$7.46. Total sales, 1,500 bbls. Good off, \$6.80@7; off, \$6.50@6.70; reddish off, \$6.30@6.50; winter, \$7.20; summer, \$7.20; prime crude, S. E., \$6@6.07; prime crude, Valley, nom.; prime crude, Texas, nom.

Closing prices, Monday, November 24, 1913.—Spot, \$7.10@7.16; November, \$7.10@7.12; December, \$7.09@7.11; January, \$7.14@7.15; February, \$7.18@7.21; March, \$7.25@7.27; April, \$7.27@7.33; May, \$7.37@7.39; July, \$7.46@7.48. Futures closed 2 decline to 6 advance. Sales were: Spot, 100, \$7.12; November, 1,000, \$7.12@7.11; December, 1,600, \$7.10; January, 600, \$7.15@7.14; March, 600, \$7.27; May, 200, \$7.38; July, 200, \$7.47. Total sales, 5,400 bbls. Good off, \$6.90@7.04; off, \$6.80@6.95; reddish off, \$6.50@6.85; winter, \$7.85@8.50; summer, \$7.35; prime crude, S. E., \$6@6.07; prime crude, Valley, nom.; prime crude, Texas, nom.

Closing prices, Tuesday, November 25, 1913.—Spot, \$7@7.15; November, \$7@7.07; December, \$7.07@7.08; January, \$7.13@7.14; February, \$7.16@7.20; March, \$7.22@7.23; April, \$7.25@7.31; May, \$7.35@7.36; July, \$7.45@7.46. Futures closed 1 to 10 decline. Sales were: November, 600, \$7.12@7.08; December, 400, \$7.09@7.07; January, 1,400, \$7.14@7.13; March, 2,300, \$7.25@7.23; May, 2,700, \$7.39@7.35; July, 600, \$7.48@7.46. Total sales, 8,000 bbls. Good off, \$6.85@7.07; off, \$6.70@7; reddish off, \$6.40@6.90; winter, \$7.85; summer, \$7.30; prime crude, S. E., \$6 sales; prime crude, Valley, nom.; prime crude, Texas, nom.

Closing prices, Wednesday, November 26, 1913.—Spot, \$7.05@7.15; December, \$7.06@7.07; January, \$7.12@7.13; February, \$7.15@7.19; March, \$7.22@7.23; April, \$7.25@7.29; May, \$7.35@7.36; June, \$7.37@7.42; July, \$7.44@7.45. Futures closed 2' to 4 decline. Sales were: December, 4,400, \$7.08@7.06; January, 1,300, \$7.13@7.12; March, 2,100, \$7.23@7.22; April, 100, \$7.28; May, 4,300, \$7.37@7.35; July, 700, \$7.47@7.45. Total sales, 13,400 bbls. Good off, \$6.80@7.06; off, \$6.60@6.63; reddish off, \$6.30@6.50; winter, \$7.25@7.90; prime crude, S. E., \$6; prime crude, Valley, nom.; prime crude, Texas, nom. Off oil, 400 bbls., \$6.65@6.60.

SEE PAGE 38 FOR LATER MARKETS.

COTTONSEED OIL EXPORTS

Exports of cottonseed oil reported for the week ending November 26, 1913, and for the period since September 1, 1913, were as follows:

	Week ending Nov. 26, '13.	Since Sept. 1, '13.
	Bbls.	Bbls.
From New York—		
Antwerp, Belgium	50	50
Barbados, W. I.	261	957
Belize, Honduras	—	27
Bergen, Norway	—	210
Buenos Aires, A. R.	65	1,259
Cape Town, Africa	—	343
Christiania, Norway	—	230
Christiansund, Norway	—	105
Colon, Panama	48	776
Constantinople, Turkey	—	100
Copenhagen, Denmark	425	2,335
Demerara, British Guiana	—	386
Fremantle, Australia	—	34
Genoa, Italy	—	2,624
Glasgow, Scotland	—	1,105
Hamburg, Germany	850	2,900
Havana, Cuba	2	63
Havre, France	200	2,099
Hull, England	100	350
Iquique, Chile	—	85
Kingston, W. I.	147	766
La Guaira, Venezuela	—	12
Las Palmas, A. R.	—	20
Liverpool, England	500	7,619
London, England	525	6,778
Manchester, England	775	1,650
Marseilles, France	375	1,250
Matanzas, Cuba	—	4
Melbourne, Australia	—	14
Monte Cristi, S. D.	—	16
Montevideo, Uruguay	—	762
Naples, Italy	—	2,871
Nuevitas, Cuba	10	30
Para, Brazil	—	4
Piraeus, Greece	—	126
Ponce, P. R.	—	8
Port Antonio, W. I.	—	77
Port au Prince, W. I.	—	17
Port Limon, C. R.	—	20
Progreso, Mexico	—	40
Rio Janeiro, Brazil	—	621
Rotterdam, Holland	200	3,713
Sanchez, S. D.	—	73
San Domingo, S. D.	—	82
San Juan, P. R.	593	656
Santiago, Cuba	23	218
Santos, Brazil	—	583
Sydney, Australia	—	35
Trieste, Austria	1,465	5,953
Trinidad, W. I.	—	34
Valparaiso, Chile	—	158
Venice, Italy	—	2,116
Vera Cruz, Mexico	—	12
Total	6,704	52,572
From New Orleans—		
Antwerp, Belgium	200	200
Genoa, Italy	—	25
Gothenberg, Sweden	—	100
Hamburg, Germany	—	60
Havana, Cuba	—	450
Progreso, Mexico	—	200
Rotterdam, Holland	1,737	1,637
San Juan, P. R.	—	450
Tampico, Mexico	—	200
Vera Cruz, Mexico	—	366
Total	1,937	4,588

From Galveston—		
Havana, Cuba	111	111
From Baltimore—		
Glasgow, Scotland	—	25
Havre, France	—	400
Total	—	425
From Savannah—		
Manchester, England	606	606
Rotterdam, Holland	—	6,041
Total	606	6,647
From San Francisco—		
Hong Kong, China	—	2
Mexico	—	1
Yokohama, Japan	—	3
Total	—	6
From all other ports—		
Canada	—	7,373
Mexico (including overland)	—	2,299
Total	—	9,672
Recapitulation—		
From New York	6,704	52,572
From New Orleans	1,937	4,588
From Galveston	111	111
From Baltimore	—	25
From Philadelphia	—	325
From Savannah	606	6,647
From Norfolk	—	600
From San Francisco	—	6
From Mobile	—	1,575
From all other ports	—	9,672
Total	9,358	74,021

GROWING SOYA BEANS IN GERMANY.

A writer for the German trade papers, says Commercial Agent Erwin W. Thompson, points out that Germany is almost entirely dependent upon foreign lands for edible oils and for oil cake and meal; in case of war, especially if there were a blockade, there would be a serious crisis in this important source of food supply. The native crops of oil seeds, such as sunflower and rape, have dwindled to a position of small relative importance, though the oil mills have increased in number and capacity.

It is of course impossible to grow such tropical products as copra, peanuts and sesame, but there is one great crop that can most likely be grown to great advantage, namely, soya beans. These grow freely in China and Mongolia where, except for some hotter summer months, the climate is similar to that of Germany.

In 1912 Germany imported 1,443,447 metric tons of oilseeds, valued at \$108,877,000, as against 998,364 tons in 1908, valued at \$58,953,000. Notwithstanding the great increase in the imports of seeds, the imports of oil and cake also continue to increase. The imports of edible oil increased from 415,000 barrels in 1908 to 450,000 barrels in 1912, and the imports of cake and meal increased from 713,933 metric tons in 1910 to 794,190 tons in 1912.

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EDIBLE OIL TRADE OF THE MEDITERRANEAN

Effect on Cottonseed Oil Industry of the United States

By Erwin W. Thompson, Commercial Agent U. S. Department of Commerce.

(Continued from last week.)

[EDITOR'S NOTE.—This report, just made to the Bureau of Foreign and Domestic Commerce, by Commercial Agent Thompson, should be of great interest to the cottonseed products trade. Mr. Thompson is a practical oil mill manager and knows the situation at home thoroughly. His studies of the foreign field should be most helpful. This is the second instalment of the first of his reports from abroad.]

Copra, Another Competing Product.

Copra is the dried meat of coconuts. The nuts are cracked into 6 or 8 pieces, the hard shell removed, and the meat dried, generally in the sun. Sometimes it is dried on green twig grills laid across long trenches of charcoal fires, but sun-dried copra is considered the best. It requires about seven weeks of sunshine for the most perfect results. The final product amounts to about 60 per cent. of the fresh meat of the nut. Copra is shipped in two-bushel gunny bags.

The world's production of copra in 1905, according to statistics published in 1906 by the Colonial Exposition of Marseille, was as follows:

Sources.	Metric tons.
Java	107,709
Macassar	25,961
Sangir, Menado, Gorontalo	19,514
Padang	6,580
Singapore, Penang	58,915
Ceylon	17,740
Manila	49,715
Zanzibar	10,000
Mozambique	5,000
Pacific islands (estimated)	30,000
Sundry	20,000
Total	351,134

The production for 1912, reduced to round metric tons from a table published by Bigeland & Co., London, was as follows: For Java and Dutch East Indies, 164,000; Manila, 140,000; Straits Settlements, 82,000; South Seas (estimated), 76,000; Ceylon, 28,000; total, 490,000.

Of the 1912 production, Germany received 114,854 metric tons and Marseille 155,117 tons. In 1885 only 22,092 tons were received at Marseille. This great expansion is due mostly to the perfection of refining methods during 1905-6, by which means copra oil, formerly used almost exclusively for soap and candles, began to be exploited as an edible product, since which the price has almost doubled.

As a result of the crude methods of gathering and drying and the long distance shipped, copra always arrives in European mills in a more or less rancid condition and

yields crude oil of a disagreeable taste and smell; but now, after neutralizing the free fatty acids with lime, and deodorizing by some patent processes, edible products are produced of a most acceptable nature. Out of the total production of 85,000 tons of copra oil, about 50,000 tons are sold direct as an edible fat, and 10,000 tons exported to the Netherlands and elsewhere for mixing with cottonseed oil, peanut oil and other soft fats to make oleomargarin. This leaves only 25,000 tons for the soap makers, who actually require (for 175,000 tons of soap) something like 120,000 tons of fat, 40 per cent. of which has heretofore been copra.

Oil Mills for the Tropics.

The copra oil industry has already experienced the changes through which the Comandel peanut business is now passing. The high prices for edible fats is diverting larger and larger quantities from baser uses, leaving unsatisfied the demands for manufacturing purposes. There is great activity in tropical countries now in planting coconut trees to fill the great demand for copra oil. It is likely that modern mills will some day be installed in the Tropics to work up the material before it gets rancid. Such mills could also be used profitably in making palm oil, as the palm fruit will not stand ocean transportation. This should open a good market for American oil mill machinery.

Quite recently some English capitalists were prospecting in the Philippines for 25,000 to 30,000 acres for planting coconut palms. They were planning also to build an oil mill there. The copra industry of the Philippines has been growing very rapidly since the American occupation, the exports for 1912 being 140,000 metric tons, against 50,000 in 1906. (The United States imported 17,150 metric tons of copra in 1911, 58 per cent. of which came from the Philippines, and 29,288 tons in 1912, 72 per cent. of which came from the Philippines.)

Hard oils, such as copra, palm, illipe and mowrah, are frequently referred to as "but-

ter," as distinguished from "oils," which are liquid. This has given rise to the erroneous notion prevalent in the United States that "coconut butter" is a sort of oleomargarin or substitute for cow butter. It is much more brittle and firm than butter, and does not resemble it in the least. It is used in the place of other oils, and in place of lard in cooking, and while it does not look any more like lard than like butter, it is a most acceptable cooking fat, retailing in small tins at 15½ cents per pound.

Palm, Kernels, Sesame and Cotton Seed.

Palm oil proper is made from the datelike fruit of the oil palm (*Elaeis guineensis*, of Africa, and the *Elaeis melanococca*, of South America). Palm oil, like olive oil, must be made near where the fruit is grown, when it is ripe, and before it ferments and dries up. As these palms all grow in undeveloped countries, the method of oil extraction is uniformly crude and unsatisfactory. As a rule, the fruit is boiled in water and the oil skimmed when cold. The West Coast of Africa exports about 100,000 tons of oil per year, Marseille receiving 20,000 to 25,000 tons and Hamburg 10,000 to 15,000. On account of its great tendency to grow rancid it has not yet been considered edible and is mostly used for soap.

The stones of the palm fruit are largely exported to European countries for making "palm-kernel" oil, which must be distinguished from "palm" oil. The kernel oil is similar to coconut oil and is used mostly for making soap. The Marseille business in this article, which has never been relatively important, has declined from 5,843 tons in 1902 to 3,503 tons in 1912. Germany is the largest importer of palm kernels, taking 117,632 tons in 1912.

Sesame (*Sesamum indicum*) is an annual plant cultivated for the oil in its small seed (about the size of turnip seed). There are many varieties, the average oil content being for Africa, 48 per cent.; for India, 50 per cent.; and for Asia Minor, 55 per cent.

Usually Marseille crushes about 70,000 tons of sesame seed a year, but owing to very bad crops it was reduced to less than 20,000 tons in 1912. The seed that is received here, mostly from the Malabar Coast of India, makes a good grade of edible oil when properly pressed and refined. It is a natural winter oil, remaining liquid at a somewhat lower

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temperature than olive oil. It is used extensively for salads and also for soap-making and for illuminating purposes.

Cotton seed has never been of great relative importance in Marseille, probably because there is a natural tendency to import materials that are produced by the French colonies, especially as all of them are richer in oil than cotton seed. The average cotton seed crush is about 15,000 tons, mostly black Egyptian seed, but with some small lots of wooly seed from Turkey and the Caucasus. Small quantities of the very fine grades of cottonseed oil are made by cold pressing and used for mixing with olive oil, while the lower grades are used in making soap.

Oil Milling Processes at Marseille.

The outstanding feature about oil milling in Marseille is the double, and sometimes triple, pressing; once cold and afterwards hot. This method is the result of several contributing causes, among which is a tradition from the olive oil industry, where, with the original hand presses, it was not possible in a single process to obtain a satisfactory yield or quality of oil. Another reason is that with some of the raw materials, containing from 50 to 60 per cent. of oil, it is difficult with a single pressing, by any of the old methods now in use here, to get as much oil as with two or three.

With some of the raw materials used here it is possible by making a first cold pressing to obtain some fine oils that are practically neutral and edible without refining. Oils from the subsequent pressings are kept separate and refined. With good and rich materials this scheme is undoubtedly good, but it does not seem logical in the case of Coromandel kernels, as the oil from the first cold pressing often contains 15 to 20 per cent. of free fatty acids, and from the second 20 to 25 per cent.

If the oil is designed for soap making, the difference between the two is of no consequence, and if it is to be made edible the cold pressed has to be refined as well as the hot pressed. Thus the additional labor and other expenses of making two or more pressings and two or more separate refinings would not seem to be justified in the case of low-grade oils.

The standard method of working shelled peanuts in Marseille is as follows:

(1) Foreign matter is removed by screens and shakers in the same manner as with cotton seed. A small quantity of unshelled peanuts is thus recovered, and there is generally some provision for shelling them.

(2) The nuts are passed through a series of rolls, generally channeled or corrugated, but not crushing so fine as for cotton seed.

(3) Meats are folded by hand into four-sided press cloths, and stacked up in a preparatory press, where they are reduced in thickness to save room in the final press.

(4) The cakes thus flattened are transferred one at a time to the "Marseille press." One cake is laid on the platen over the hydraulic ram, a thin, flat steel plate is laid on, then another cake, and so on till the press is filled, generally with 20 square cakes. There are no protecting sides, or "boxes," in this press, the materials being retained entirely by the strength of the press cloth.

(5) After the press has stood long enough to extract one-half to two-thirds of the oil, the cakes are removed, stripped, and run through a cake breaker and coarse rolls.

(6) The coarsely ground cake is fed in intermittent charges to a large vertical mulling stone, where it is moistened by a small stream of water, or by throwing in by hand a measured quantity of water to each charge, the amount depending upon the judgment of the operator.

(7) From the mulling stones the material goes to the heaters, similar to those in a cottonseed oil mill.

(8) The cooked material (much less cooked than cottonseed meal) is drawn out and put through a second pressing in the same manner as the first. The final cakes are square and have soft edges all around. They are trimmed by hand with a heavy knife, and the corners are chipped off. These trimmings, amounting to 6 or 8 per cent. of the weight of the cake,

are rich in oil and are worked over with new meats.

How Other Oil Seeds Are Treated.

Unshelled peanuts are worked in the same way after decortication, which process is, in a general way, like decorticating cotton seed, except that it is easier. The huller is a much lighter machine. Either disk or cylinder hullers are used. The hulls are separated by screens, shakers and fans, very much as in cottonseed oil milling, and are ground fine and sold as fillers for feedstuffs and sometimes burned for fuel. In mills making very fine oils various machines are fitted with aspirating machinery for removing the fine red pellicle, or thin inner shell.

Other oleaginous materials are treated in the same general way of the above, with variations in detail to suit the varying requirements, but always with two and sometimes three pressings. Copra requires special sets of rolls, armed with spikes for cutting up the first raw material—heavy and coarse for the first pair, and growing finer for the successive pairs, to effect the gradual reduction of the materials before cooking. It is always pressed hot.

Castor beans are generally pressed warm three times. There is much so-called cold-pressed castor oil in the market, but practically all of it is pressed after heating to a greater or less degree. Otherwise, on account of its heavy viscous nature, the process would be very slow. Castor oil, when made from good, sound beans and actually pressed cold, is practically tasteless.

A mill crushing 100 tons of shelled peanuts per day of 24 hours requires about 300 horsepower, or 72 horsepower hours per ton of nuts. Unshelled peanuts require about the same amount of power per ton of raw material, for, as an offset to the small additional power for the shelling, there is about 25 per cent. less actual meats per ton to be milled. All the cake is sold in the form of cake, and so there is no power required for final cake grinding, and the intermediate grinding is not hard. A large set of mulling stones for a 100-ton mill consumes about 8 horsepower, whereas the final cake grinding for a 100-ton cottonseed oil mill in the United States takes nearly 100 horsepower.

Many mills here use electric power supplied by two companies with water powers within 40 miles of Marseille. The total current supplied to large consumers is reported to be 25,000 horsepower, costing \$42.46 per horsepower per year 24-hour days, or \$32.81 for 12-hour days. The current is 3-phase, 25 cycles.

Press Cloth Materials and Methods.

The use of open plates in the Marseille press, without side walls, subjects the press cloth to pressure on all four sides, and it is therefore twice as likely to break as cloths in American presses with boxes closed at the sides and exposed only at two ends. One Marseille press cloth is in fact equivalent to two American cloths. It is made by laying one cloth across another and sewing them together in the shape of a cross and then darning in a gusset at each corner to prevent the escape of meats at the corners. The cloth is about 16 inches wide, and each piece 54 inches long; when folded over it provides for a cake 16 inches square. The Marseille press cloth is in effect a folding basket that can be opened to let out the hard cake.

Many different materials have been tried for press cloth—horse-hair, wool, camel's hair, goat's hair, human hair, and the fiber of the aloe plant. Each material has its advocate, and it is probably true that there is some one kind best adapted for each kind of oil made and for each kind of press used. Camel's hair, which is used almost exclusively in the cottonseed oil mills of the United States, has for some reason not found much favor in Marseille.

In Marseille press cloth is extensively made from human hair. It is claimed here that it is better and cheaper per ton of seed crushed than camel's hair. While conditions in the French crushing industry are somewhat different from those in the United

States, it would still seem worth while to try this kind of cloth. One or two factories are spinning and weaving the goods complete, and several are spinning the yarn and selling to oil mills which do their own weaving on the premises.

Some factories prepare the hair ready for spinning and sell it in that form. The hair is imported from China and Japan and is of varying quality, the Japanese hair being considered the best, probably not because the hair itself is any better, but because it is generally put up in better condition.

The following table shows the prices in Marseille of various goods, as per numbered samples submitted (which will be loaned by the Bureau of Foreign and Domestic Commerce):

No.	Designation.	Length in inches.	Francs per kilo.	Cents per pound.
1	Japanese	8 to 10	2.25 to 2.50	19.7 to 21.9
2	Shanghai, "solid" (i. e., even lengths)	10	1.75	15.3
3	Shanghai	5 to 10	1.50	13.1
4	Hongkong and Canton	4 to 6	1.50 to 1.75	13.1 to 15.3
5	Waste, or "balls," Mixed		.75 to .90	6.6 to 7.9
6	Prepared for spinning		1.75	15.3
7	Spun		2.25	19.7
8	Woven, ordinary Chinese		3.10	27.1
9	Woven, twilled Japanese		3.85	33.7

In comparing the prices of this human hair with the kinds of camel's hair which come to America for weaving press cloth it is necessary to take into account the varying percentages of shrinkages incident to manufacturing. "Shrinkage" in this connection in the textile trades means the difference between 100 pounds of raw material and the weight of the finished goods produced therefrom. Certain kinds of good long camel's hair will shrink 25 per cent., while other kinds, shorter in staple or dirtier, will shrink 50 per cent. The general appearance of the human hair sold in Marseille would indicate a shrinkage of 15 to 20 per cent. The difference in price quoted between the raw and finished product seems to confirm this estimate.

Human hair may be bought from Raoul Blanc, 24 Boul. des Chartreux, Marseille. He is honorary consul for China, a Frenchman, and an extensive dealer and worker in hair. Another dealer is Vieira & Co., 50/2 Queens Road, Central, Hongkong, China. Manufactured yarn and cloth may be bought of Maurice Massias, Rue Felix-Pyatt, Marseille.

Many of the large mills that use aloe fiber spin and weave their own press cloth. This fiber is long and yellow, resembling sisal. It is received in bales and combed out by hand and spun by the most primitive, rope-walk methods on home-made apparatus. There is a single horizontal spindle with a hook on the end. It is driven by a rope band from a large wheel below, which wheel is revolved by the unwinding of a rope tied to the spinner's waist. He puts some fibers on the hook and backs away in front of the spindle, feeding more fiber from his apron as he walks.

Three strands of this cord are afterwards twisted together by the same sort of spindle, making a final three-ply cord a quarter of an inch in diameter. This is wound on large spools, which are put up in a creel and used for warp at the back of a heavy power loom. The filling is sometimes of the same material and sometimes of goat's hair spun in the same manner.

One can spin about 35 pounds a day. Notwithstanding the handwork, the material as finally delivered is fairly cheap, say 15 cents a pound. The cost is made up about as follows, per 100 pounds of cloth: One hundred and eleven pounds of fiber, \$8.33; cost of combing 111 pounds of fiber, \$1.22; cost of spinning 103 pounds, \$3.71; cost of weaving 100 pounds, \$0.80; total cost, \$14.86.

Notwithstanding the low cost of press cloth, the cost per ton of material crushed is very high—from \$1.50 to \$2 per ton of 2,000 pounds, as against 20 to 30 cents for decorticated cotton seed in the United States. In making the comparison, however, allowance must be made for the fact that in

(Continued on page 33.)

HIDES AND SKINS

(DAILY HIDE AND LEATHER MARKET)

Chicago.

PACKER HIDES.—The market is quiet and packers are not looking for much business for the balance of the week owing to the holiday. There is no change to note in quotations. The receipts and slaughter show up lighter so far in November than last year, and consequently the packers are not inclined to shade prices on October-November or December salting, claiming that these will all be wanted at good prices by tanners who cannot use long-haired winter stock. Native steers are unchanged at 19½¢. last paid, but the buyers say this is a nominal figure and their ideas are no better than 19¼¢. While the market on all lines is far from materially weak there is an undertone of easiness owing to poorer quality that will now come forward. Packers, however, are in a good position, being generally well sold up on about all lines. Texas steers continue at 18¼@19¢. for heavy weights, with these relatively easier than lights and extremes, the former being quoted at 18¾¢. and extremes 18¼@18½¢. on last sales. Butt brands last sold at 18¾¢., but are neglected and rather nominal, with 18½@18¾¢. last ranged. Colorados lately sold at 18½¢., although buyers looked to see the market decline to 18¼¢., and they claim that these 18½¢. hides were extra good quality to bring the price. Branded cows range 18¼@18½¢., but are relatively steadier than butt brands, Colorados or heavy Texas. Stocks are well sold up. Native cows are unchanged at 18½¢. last quoted for heavy weights, while lights range 18¼@18½¢., with recent sales at the inside price for St. Louis stock. Native bulls are unchanged at 16¢. on last sales ahead to January 1, and are well sold up. Branded bulls range 15@15½¢. asked, with no late sales of these.

Later.—One thousand July to date light average native steers sold at 19¼¢. f. o. b. Kansas City. The market on the whole is neglected, with an easier tendency noticeable and the same is true for country hides, particularly stock for future delivery.

COUNTRY HIDES.—The undertone keeps easy, but the barrenness of stocks still exert a sustaining tendency and will likely prevent anything in the nature of sharp declines. However, the market is quotably lower than a fortnight ago, with sales of buffs, understood for future shipment, at 16¼¢., and extremes have again sold at 17½¢., this being apparently the limit for these at present, although light stock continues the firm end of the market. Most of the dealers claim they can purchase advantageously at outside points owing to light stocks, and the fact that the outside dealers are talking too high prices. Buffs are lower with a sale of a car down to 16¼¢. understood for future delivery, with up to 16½¢. asked for prompt shipment and stocks light. Heavy cows continue at 16¼¢. last paid, with some buyers' views not over 16¢. Extremes continue the firmest end of the market, but are not quite as high as heretofore, with a sale of two cars at 17½¢. Other reports note business at 17¼¢., but this refers to trading last week for immediate shipment, and that price is considered too high for today's market. Heavy steers are quiet but unchanged, with stocks light and range 16½¢. for regular countries, and 16¾@17¢. for stock including city butcher stock. Bulls last sold 14@14¼¢.

CALFSKINS.—Firm but quiet. Chicago city skins last sold at 21½¢. for choice stock, but the asking price up to 22¢. has not been realized. Certain lots of Chicago cities could probably be bought at 21¢. in view of the easier foreign markets and lower prices prevailing in the East, and outside cities are nominally unchanged at 21¢., with countries 19½@20½¢., depending upon section, qual-

ity, etc. Kips are relatively firmer than calfskins and well sold up. Cities and packers held 19¢., mixed cities and countries last sold 18¾¢.

SHEEPSKINS.—Steady, with late takeoff packer stock ranged \$1.15@1.25 asked, outside city packers, as they run, 85¢@1.15, and countries 60@80¢. Country shearlings were last quoted at 45@60¢. No change is noted in dry murrains, which were last listed at 14@14½¢. per pound for Montanas, and 12@12½¢. for Wyoming and New Mexico.

New York.

DRY HIDES.—Negotiations are under way for the disposal of the remainder of the Bogotas on spot ex-"Pr. Eitel Friedrich," but the actual sale of these was not reported. Some buyers expect the market to recede to 29½¢. as a basis for mountain hides, but this lot is the only available offering, as fresh arrivals are made up almost entirely of River Plates comprising the following: Per "Byron," 20,891 Buenos Aires; per "Kelvingrove," 13,387 Rosario and 3,000 Buenos Aires, and per "Horatius," 18,500 Buenos Aires. The "Carl Schurz" brought 64 bds. Centrals and 820 bds. Cubans, the latter probably wet salted. There are more liberal offerings of Central Russian stock with some good-sized amounts reported available. These emanate from German speculators, and while nominal high prices are talked, counter bids at substantially lower values are solicited and it is believed these dealers are anxious to unload. These offerings are for shipment from German ports. There is little new in River Plates. One offering is noted of 2,000 winter hair Cordova city stock, 15 per cent. seconds, 10½@11½ kilos average, at 33½¢. asked.

WET SALTED HIDES.—Some interest is shown by both Europe and the United States in frigorifico stock, but Mataderos and Campos keep easy, with offerings liberal of these. Recent sales comprise 1,000 Uruguay frigorifico steers, salting October 10, at 19½¢., and 3,000 Santa Fe Aldeo Matadero and Campos steers and cows, the latter sale to the United States at 14½¢., this registering a decline of ¼¢. One thousand Uruguay 27 kilo minimum average steers under salt November 20 are offered at 19½¢., and the two following lots of Matadero and Campos stock, October-November salting: Two thousand Santa Fe Rafaela (Oliber, running two-thirds steers, one-third cows, 29@30 kilo average, at 14½¢., and 1,500 similar description kips, 6@16 kilos average, 11½@12 kilos at 14¢. Receipts in lately are: Thirteen thousand from Buenos Aires per "Byron," 1,000 Rosario and 16,837 Buenos Aires per "Kelvingrove," also 2,000 from Montevideo and 6,000 from Buenos Aires per "Horatius."

CITY PACKER HIDES.—The market is in a waiting position. There are no sales, but the packers evidently unwilling to grant as low prices as some buyers talk.

COUNTRY HIDES.—Trade keeps slow, although this is not unusual for holiday week. Large tanners are conservative, but there is no particular change, and the small offerings continue to exert a sustaining tendency. New York State hides were last ranged at 15@15½¢. flat for small lots, according to section, dealer, etc., and there is an absence of offerings of carload quantities. Middle West hides are unchanged and generally quiet.

HORSE HIDES.—Have shown strength right along in contrast to cattle hides. Straight outside city and renderers' whole hides have been bringing \$5 lately, although buyers here range these down to \$4.85 as to lots. Mixed countries and outside cities continue at \$4.75, with offerings small. Fronts are unchanged at \$3.65@3.75, but tanners are not inclined to buy at the outside figure. Butts continue lacking in fresh features of interest, and are quotably unchanged on a range of \$1.60@1.65.

CALFSKINS.—Continue quiet. New York City skins lately sold at \$1.80, \$2.30 and \$2.65, but 5@7-lb. weights alone are not salable at \$1.80, although these have been offered on this basis for some time and counter bids are solicited.

European.

One offering is noted of about 3,000 Swedish cows, 34@36 lbs., at 8¼¢. c. i. f. New York, and this is about as low a price as has been quoted for this stock in some time, the hides being for December-January shipment. Another lot of 2,000 North Swedish, 38@42 lbs., is offered at 8¢. Offerings of foreign hides continue to increase here, which would denote that the foreign demand from tanners is light. Five hundred New Zealand butcher hides, 30@50 lbs., are offering at 9¼¢. c. i. f. New York, also 3,000 Johannesburg best heavy 60@65-lb., stock London landed weights at 9¼¢. c. i. f. New York, and some Queensland butchers, including ox and cows, all weights 40@70 lbs., at 9¼¢. c. i. f. There is an offering of Kasan wet salted grassers, 10@30-lb. average 19@20-lb., at 16½¢., and 1,000 New South Wales wet salted good butcher calfskins, 4@10-lb. London landed weights, at about 12½¢. c. i. f. New York.

Boston.

Demand moderate and Middle West hides are easier, although offerings have not increased.

EDIBLE OILS IN MEDITERRANEAN.

(Continued from page 32.)

working the decorticated seed only 60 per cent. of the tonnage actually goes through the press, and also for the fact that there are at least two pressings in Marseille, and that the cloth has double the surface subject to pressure. The relative cost, therefore, could be ascertained correctly by comparing the 20 to 30 cents for decorticated cotton seed with a cost of 22½ to 30 cents in Marseille.

Market for American Machinery.

Apparently the practical reasons why Coromandel shelled nuts should not be worked by one hot pressing are as follows: With the present style of flat press plates, no press cloth can stand the pressure necessary to get all the oil at one time. With the present equipment of heaters the materials cannot be heated sufficiently to remain hot for the length of time required under pressure to give the full and proper yield of oil. There is no effort now made to hurry the meats from the heaters to the presses with a view of conserving the heat in the cake.

Here is an excellent opportunity for American manufacturers to introduce American presses and heaters. With the proper installation and system it would be perfectly possible in one pressing to produce cake containing no more than 6 per cent. of oil, instead of 10 per cent., as is frequently the case now, even with two pressings. At present, 1,140 pounds of cake are made per short ton of nuts, hence the increased yield of oil on the above basis would be 45.6 pounds. At 6.83 cents a pound the additional oil would be valued at \$3.11; as there would be a loss of 45.6 pounds of cake, valued at \$0.0129 a pound, the net gain would amount to \$2.52. Besides this, there would be a saving of perhaps 50 cents in press cloth and 50 cents in labor, which, added to the additional oil yield, would make a possible improvement in results of about \$3.50 per ton.

It is well to remember, however, that no great headway can be made in the introduction of new American machinery without careful training in methods. American machinery operated under the general plan in vogue here would not produce appreciably better results than the old machinery.

(To be continued.)

Chicago Section

Huerta is all right until—the doctor sees him.

The turkey trot will follow the turkey soup.

One thing in Huerta's favor, anyhow. He ain't no pal of Hearst's, like Diaz was.

Well, we went through the list safely—turkey, products, by-products and by-by products.

The packers still maliciously and stubbornly refuse to pay more for hogs than they have to.

We'll have a better opinion of F. B. Sayre's ideas of married life in about a year from now, if he has any—to express.

There was a time when the packinghouse help wouldn't even carry pork tenderloins home, much less pay for them!

General Wood will be a trifle more cautious next time he jabs the spur into his horse. Hoss on him that time!

Running for office is much more popular and a lot safer in Mexico than is running for office. Yes, indeed, Liz!

Some load to carry—a thorough understanding of the currency and income tax questions. But why worry about the load?

Miss Charlotte Hall, of Swift & Company's soap department, inherits \$500,000, provided she gets married within a year. L-o-o-k o-u-t!

Swift & Company's sales of fresh beef in Chicago for the week ending Saturday, November 22, 1913, averaged 11.05 cents per pound.

Well, "it's an ill wind," etc. When women get into politics there will be no secrets kept, as far as they are concerned. That's a cinch!

Today, December 29, the International Livestock Show opens up for an eight-day "run for your money"—and you'll get it there, too!

The pilgrim fathers doubtless never even dreamed that Thanksgiving Day would be an elegant excuse for "holding up" the peepul at a later day.

There's a limit to a display of affection—some kinds. It is reported that at a banquet O'Shaughnessy was hugged and kissed by Huerta. Great pumpernickel!

"Well, what have you got, Buck?" said Doc, as he began to drag off his mittens. "I've got an even two bones, Doc," said Buck, "so go as far as you like."

Now Roger Sullivan would seek some more light. He will probably get all the searchlights turned on him he cares for before he gets through hotfooting it for Senator.

Not even this "Mexican crisis," ugly as it looks, will do for that "rock we are to perish on." 'S funny we can't find something to bloomin' well perish on. Oh, well, let's hope.

There are lots of guys just full of music when they are full of spirits fermenti, but when they begin to unload that music it sounds more like a dogfight than upperattic stuff.

County Treasurer William O'Connell is in receipt of the information that the interest on moneys collected and deposited by him belongs to the peepul. Now, whatdye know about that?

Spotless reputations are nearly as hard to keep clean these days as Mary's little lamb would be in Pittsburgh. Then there are also spotless reputations that haven't been "spotted" yet!

After all, the present administration is not so worse in spite of all the "nuts," newspaper and otherwise, annoying it. After the manner of the fly and the horse. Uncle Billy seems to be the fly-net.

Trading in grain privileges for next week is as follows: Bids, December wheat, 85; offers, 89¾. Bids, May wheat, 89½; offers, 93¾. Bids, December corn, 68¾; offers, 73. Bids, May corn, 68¾; offers, 72½.

Lorado Taft says of that "Dear Old Broadway": "It is an unsightly glare of lights, and Chicagoans ought to be thankful they have not sunk to such a degree!" Gee! but that N'York bunch must be putty low!

Board of Trade prices on grain and provisions are low, exceedingly so, compared with prices of other commodities. Looks like there should be a couple or three fifty-pound lard pails of coin in buying anything on sags.

The Peerless Packing & Provision Company, Chicago, has been formed with a capital stock of \$100,000, to do packing and handling meats and by-products. Incorporators are C. Quinlan, C. J. Short and B. J. Short.

"An American," in a letter to the Daily News, among other things, says: "Mrs. Pankhurst makes most of our historical heroes fade into insignificance when their deeds are compared to hers." Comment is unnecessary.

When surrounded by reporters all you have to say, in a deep, but dinky subway voice, is: "Lux lyk rane!" (Latin for "Downpour of wet water.") And the papers next day will have a collum about how the president "trun yuh down!"

"Eggs are scarce because chickens are scarce, and chickens are scarce because eggs are scarce!" says a writer on matters of national importance. Reminds us of the old proverb: "If we had some ham we'd have ham and eggs for breakfast, if we had some eggs."

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tion, COTTONSEED OIL AND PRODUCTS.

IF YOU ARE SELLERS, we have facilities for placing your offerings to best advantage in all directions.

IF YOU ARE BUYERS, give us a call. If we have no suitable offerings in hand we will find what you want.

TIN PLATING

Federal and State laws require copper ket-tles, coils, pipe, valves, tanks and other apparatus used in the preparation of food products tinned.

Write us for prices.

C. Doering & Son, Inc.
Lake and Sheldon Sts., Chicago, Ill.

WE ALSO MAKE

a complete line of all kinds of tanks, churns, vats, light and heavy sheet metal work for the packing house, but-terine and oleo factory.

MERIT!!!

That is what makes our

SUPREME ANHYDROUS AMMONIA

tower way above all others

It is a product of which we are justly proud.

Did you ever hear of anyone change after once using

ANHYDROUS SUPREME AMMONIA

"EVERY OUNCE ENERGIZES"

Drop a line for a demonstration.

Supreme Means { Less Power—Less Coal—Less Expense.
More Refrigeration—More Satisfaction—More Efficiency.

NEW YORK
35th St. & 11th Ave.
Provision Department

MORRIS & COMPANY

CHICAGO
U. S. YARDS

The great majority of youze will be pleased to learn that practically all the operatic star and staresses have arriven in Chicago, and will open up shortly. The great majority who attend these yowlfests enjoy the sights and frights immensely. The "ham-tree" for us! Natural, anyhow.

Peffesser Uptub says "all the elevated cars in the city are chock full of all kinds of dangerous microbes." Pity some of 'em wouldn't bite the leg off'n a few of the mayhems who perpetrated the latest public inconvenience system on the "L." The present "L" system and the telephone service in Chicago has done much to propagate the use of unseemly, unladylike langwidge.

Robert S. Redfield, of the Brecht Company of St. Louis, was in Chicago during the week on his return from Los Angeles, Cal., where he closed a contract for a garbage disposal plant for that city to cost something like \$350,000. While here he contracted with W. R. Perrin & Company for the evaporation instalment in the Toronto municipal abattoir now being erected. Some live wire, Bob is.

It was a dark, dismal, stormy night, the wind shrieked, howled and yowled, the lightning fa-lashed; the thunder roared and crashed and the rain came down in torrents, and he was just about to hop into his benzine eradicator when from the shadows out popped a pop-eyed coke and asked: "What about the beef ——" The answer came back from the depths of the limousine: "Go to blazes!" And the benzine wagon was lost in the night.

Mamie announced that she would not marry any man who either swore, drank, chewed, smoked, snored, bet or speculated, flirted, played poker, kept late hours, attended prize fights or limb shows, and so on down the line of male weaknesses, indulgences, idiosyncrasies or what ever else you are pleased to term them. Now, Mame, you may find this spotless gimp, but—well, he probably won't do anything else, either, and you will have to—take in washing!

What with the garbage question; the unmuzzled ferocious lake water; the boundless endless smoke; the real estate at large, parading as mud or dust; the elevated and surface transportation criminalities; the terrific din of dress, motoreycle, automobile, "L" and surface cars, whistles, and subway plans; the defective force; the gang of criminals and the horde of "vice" and "booze" nuts at large, etc., etc.; Chicago bids fair to become one of the seven blunders of the world.

McNab got so awful tired of eggs three times a day in every guise imaginable at his boarding house that he invested in a couple of pounds of sausage, and, handing them to the chef, said: "I'll ha'e them fer me brekfuss in th' mornin'!" "An' phwat th' devil's thim?" asked the Hungarian cook. "Sis-side, yuh mutt!" said McNab. "An' howja kuk 'em?" asked the chef. "Like a fish!" said McNab. Next morning Mac met the kuk and the kuk sed: "Mac, I think ye'll not enjoy yer brekfuss much, fer after I'd claned thim things out there wasn't much left!" Jevver hear a Scotchman cuss?

FRESH MEAT SUPPLY OF NORWAY.

It has been generally supposed, writes Consul R. M. Rasmusen from Bergen, that Nordland, as the northernmost parts of Norway are called, would be able to supply the whole of western Norway with fresh meat and that, so far as domestic consumption was concerned, the supply was inexhaustible. Recent statistics, however, show that this is erroneous, and that the number of cattle and sheep will be barely sufficient for home consumption. It has been found also that the counties of North and South Bergenhus, comprising the consular district of Bergen, which were supposed to rely on Nordland for fresh meat, have a larger per cent. of meat-producing animals per capita than the northern counties.

The high price of meat at present and for several years past has revived stock raising, which had greatly declined during the period of the previous low prices. Such revival will probably affect the city of Bergen and this consular district in a greater degree than Nordland.

The market for fresh meat is growing rapidly, owing to the industrial expansion both within and without the city. The large number of tourist vessels, naval squadrons, and pleasure yachts that call at this port also require large quantities of provisions, of which meat is the main item.

The new mountain railway between Bergen and Christiania has also become an important factor in the fresh-meat situation by reason of having opened a near-by market at Christiania and the east, which formerly required several days to reach by vessel around the coast. This outlet will probably drain the Bergen district of any surplus for years to come.

According to the latest available statistics, the annual import of salt meat and pork from foreign countries at the port of Bergen was as follows: Meat, 994,576 pounds; pork, 289,674 pounds. Information is lacking with regard to the import of domestic meats.

CHICAGO LIVE STOCK

RECEIPTS.				
	Cattle.	Calves.	Hogs.	Sheep.
Monday, Nov. 17.....	27,232	1,295	46,653	43,672
Tuesday, Nov. 18.....	7,050	1,313	29,051	18,230
Wednesday, Nov. 19.....	18,240	1,433	34,306	19,010
Thursday, Nov. 20.....	4,394	599	24,877	20,650
Friday, Nov. 21.....	1,529	221	27,443	11,253
Saturday, Nov. 22.....	332	34	16,507	2,097
Total last week.....	58,777	4,895	178,837	114,932
Previous week.....	58,224	4,853	183,328	183,527
Cor. time, 1912.....	70,311	5,630	164,855	184,392
Cor. time, 1911.....	62,496	6,953	194,631	131,341

SHIPMENTS.				
	Cattle.	Calves.	Hogs.	Sheep.
Monday, Nov. 17.....	4,552	91	7,575	10,893
Tuesday, Nov. 18.....	3,481	121	4,698	15,063
Wednesday, Nov. 19.....	6,399	160	5,293	10,588
Thursday, Nov. 20.....	5,038	85	3,023	8,202
Friday, Nov. 21.....	2,542	40	2,123	2,381
Saturday, Nov. 22.....	447	9	1,616	108
Total last week.....	23,059	446	25,198	47,235
Previous week.....	20,917	314	38,494	40,066
Cor. time, 1912.....	22,925	356	18,283	40,623
Cor. time, 1911.....	25,224	432	13,446	30,089

CHICAGO TOTAL RECEIPTS LIVESTOCK.

	Cattle.	Hogs.	Sheep.
Year to Nov. 22, 1913.....	2,240,437	6,579,961	5,268,040
Same period, 1912.....	2,376,836	6,395,577	5,378,394

Combined receipts of hogs at eleven points:

Week ending Nov. 22, 1913.....	675,000
Previous week.....	563,000
Cor. week, 1912.....	445,000
Cor. week, 1911.....	585,000
Total year to date.....	21,863,000
Same period, 1912.....	21,591,000

Receipts at six points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City) as follows:

	Cattle.	Hogs.	Sheep.
Week to Nov. 22, 1913.....	186,100	443,900	227,200
Week ago.....	164,000	392,800	358,500
Year ago.....	202,000	425,800	324,800
Two years ago.....	181,800	501,800	244,900

Combined receipts at six markets for 1913 to date and same period year ago:

	1913.	1912.
Cattle.....	6,732,000	6,789,000
Hogs.....	16,316,000	16,689,000
Sheep.....	11,960,000	11,875,000

CHICAGO PACKERS' HOG SLAUGHTER.

Week ending Nov. 22, 1913:	
Armour & Co.....	35,400
Swift & Co.....	24,400
S. & S. Co.....	17,500
Morris & Co.....	13,000
Anglo-American.....	7,800
Boyd, L. & Co.....	6,100
Hammond Co.....	9,800
Western P. Co.....	9,500
Roberts & Oake.....	5,600
Miller & Hart.....	3,100
Independent P. Co.....	6,500
Brennan P. Co.....	5,500
Others.....	6,900

Totals.....	151,100
Previous week.....	127,000
1912.....	152,700
1911.....	183,900
Total year to date.....	5,296,000
Same period last year.....	5,112,700

WEEKLY AVERAGE PRICE OF LIVE STOCK.

	Cattle.	Hogs.	Sheep.	Lambs.
This week.....	\$8.15	\$7.75	\$4.40	\$7.10
Previous week.....	8.35	8.01	4.60	7.45
Cor. week, 1912.....	8.00	7.75	3.95	7.05
Cor. week, 1911.....	6.75	6.35	3.40	5.20
Cor. week, 1910.....	6.10	7.01	3.65	6.10

CATTLE.

Steers, good to choice.....	\$9.00@9.15
Steers, fair to good.....	7.50@8.75
Distiller steers.....	8.65@9.10
Inferior steers.....	7.00@7.50

Range steers.....	8.00@8.50
Yearlings, good to choice.....	8.50@9.50
Stockers.....	6.00@7.25
Feeding steers.....	6.50@7.50
Medium to good beef cows.....	5.25@6.00
Fair to good heifers.....	7.25@8.00
Good to choice cows.....	5.75@7.15
Common to good cutters.....	4.25@4.75
Butcher bulls.....	7.00@7.50
Bologna bulls.....	5.75@6.25
Good to choice calves.....	8.75@10.25

HOGS.

Choice light, 160 to 190 lbs.....	\$7.50@7.60
Light mixed, 160 to 200 lbs.....	7.50@7.65
Prime light butchers, 200 to 230 lbs.....	7.60@7.70
Medium weight butchers, 230 to 270 lbs.....	7.65@7.75
Prime heavy butchers, 250 to 300 lbs.....	7.60@7.75
Mixed packing.....	7.15@7.40
Heavy packing.....	7.30@7.55
Pigs.....	5.25@6.50
Boars.....	1.50@2.75
*Stags.....	7.50@8.00

*All stags subject to 50 lbs. dockage.

SHEEP.

Native lambs.....	\$6.50@7.50
Fed western lambs.....	6.50@7.50
Fed western wethers.....	4.00@5.00
Breeding ewes.....	4.00@4.75
Feeding lambs.....	6.00@6.85
Feeding yearlings.....	5.00@5.50
Feeding wethers.....	4.00@4.65
Feeding ewes.....	3.50@4.00
Native wethers.....	4.00@5.00
Native ewes.....	3.75@4.40
Native yearlings.....	5.25@6.25

CHICAGO PROVISION MARKET

Range of Prices.

SATURDAY, NOVEMBER 22, 1913.

	Open.	High.	Low.	Close.
PORK—(Per bbl.)—				
January.....	\$20.65	\$20.77½	\$20.65	\$20.77½
May.....	20.57½	20.70	20.57½	20.70
LARD—(Per 100 lbs.)—				
November.....	10.82½	10.87½	10.80	10.70
January.....	10.82½	10.87½	10.80	10.87½
May.....	11.05	11.10	11.05	11.10
RIBS—(Boxed, 25c. more than loose)—				
January.....	10.85	10.90	10.85	10.90
May.....	11.02½	11.10	11.00	11.10

MONDAY, NOVEMBER 24, 1913.

PORK—(Per bbl.)—				
January.....	20.85	20.85	20.75	20.80
May.....	20.75	20.80	20.70	\$20.77½
LARD—(Per 100 lbs.)—				
November.....	10.95	10.95	10.87½	10.72½
January.....	11.15	11.17½	11.10	11.12½
RIBS—(Boxed, 25c. more than loose)—				
January.....	10.95	10.95	10.90	10.92½
May.....	11.15	11.17½	11.10	11.12½

TUESDAY, NOVEMBER 25, 1913.

PORK—(Per bbl.)—				
January.....	20.75	20.90	20.75	20.90
May.....	20.70	20.90	20.70	\$20.90
LARD—(Per 100 lbs.)—				
January.....	10.87½	10.92½	10.87½	10.90
May.....	11.07½	11.17½	11.07½	\$11.15
RIBS—(Boxed, 25c. more than loose)—				
January.....	10.87½	11.00	10.87½	10.97½
May.....	11.07	11.20	11.07½	\$11.17½

WEDNESDAY, NOVEMBER 26, 1913.

PORK—(Per bbl.)—				
January.....	20.92½	20.92½	20.92½	20.92½
May.....	20.77½	20.92½	20.77½	\$20.87½
LARD—(Per 100 lbs.)—				
November.....	10.67½	10.87½	10.67½	10.67½
January.....	10.82	10.82½	10.82½	10.87½
May.....	11.07½	11.15	11.07½	\$11.12½

RIBS—(Boxed, 25c. more than loose)—				
January.....	10.92	11.02½	10.92½	11.00
May.....	11.15	11.20	11.12½	11.17½

THURSDAY, NOVEMBER 27, 1913.

Holiday. No market.

FRIDAY, NOVEMBER 28, 1913.

PORK—(Per bbl.)—				
January.....	21.00	21.15	20.95	21.15
May.....	20.92½	21.10	20.90	21.07½

LARD—(Per 100 lbs.)—				
November.....	10.87½	10.90	10.87½	10.87
January.....	11.10	11.15	11.10	11.12½

RIBS—(Boxed, 25c. more than loose)—				
January.....	11.00	11.10	11.00	11.10
May.....	11.20	11.27½	11.17½	11.27½

†Bid. ‡Asked.

CHICAGO RETAIL FRESH MEATS.

(Corrected weekly by Pollack Bros., 41st and Halsted Streets.)

Beef.

Native Rib Roast.....	20	@25
Native Sirloin Steaks.....	22	@25
Native Porterhouse Steaks.....	25	@32
Native Pot Roasts.....	15	@18
Rib Roasts from light cattle.....	13	@17
Beef Stew.....	12	@14
Boneless Corned Briskets, Native.....	16	@16
Corned Rumps, Native.....	16	@16
Corned Ribs.....	18	@12½
Corned Flanks.....	10	@10
Round Steaks.....	18	@23
Round Roasts.....	15	@18
Shoulder Steaks.....	17	@17
Shoulder Roasts.....	15	@16
Shoulder Neck End, Trimmed.....	12½	@12½
Rolls Roast.....	16	@18

Lamb.

Hind Quarters, fancy.....	16	@20
Fore Quarters, fancy.....	12½	@15
Legs, fancy.....	20	@22
Stew.....	20	@22½
Chops, shoulder, per lb.....	16	@16
Chops, rib and loin, per lb.....	30	@30
Chops, French, each.....	15	@15

Mutton.

Legs.....	12½	@14
Stew.....	8	@10
Shoulders.....	12	@12
Hind Quarters.....	12	@12
Fore Quarters.....	10	@10
Rib and Loin Chops.....	18	@20
Shoulder Chops.....	12½	@14

Pork.

Pork Loin.....	18	@20
Pork Chops.....	20	@22
Pork Shoulders.....	15	@15
Pork Tenders.....	18	@40
Pork Butts.....	18	@18
Spare Ribs.....	12½	@12½
Hocks.....	11	@11
Pigs' Heads.....	8	@8
Leaf Lard.....	13	@13

Veal.

Hind Quarters.....	20	@22
Fore Quarters.....	14	@16
Legs.....	20	@22
Breasts.....	14	@16
Shoulders.....	16	@18
Cutlets.....	30	@30
Rib and Loin Chops.....	25	@25

Butchers' Offal.

Suet.....	7	@7
Tallow.....	4½	@4½
Bones, per cwt.....	1.25	@1.25
Calfskins, 8 to 15 lbs. (deacon).....	19½	@19½
Calfskins, under 8 lbs. (deacon).....	65	@65
Kips.....	16	@16

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TANKAGE PRESSES AND DRYERS

Economical Efficient
Great CapacitySAVING IN LABOR ALONE IN ONE YEAR WILL
OFFSET COST TO INSTALLFor Tankage, Blood, Bone, Fertilizer, all Animal and
Vegetable Matter. Installed in the largest packing-
houses, fertilizer and fish reduction plants in the world.

Send for Catalogue T. E.

American Process Co.
68 William St., • • New York

CHICAGO MARKET PRICES

WHOLESALE FRESH MEATS.

Carcass Beef.

Prime native steers.....	13 1/4 @ 18 1/2
Good native steers.....	12 1/2 @ 13 1/4
Native steers, medium.....	12 1/4 @ 13 1/2
Helpers, good.....	13 1/4 @ 13 1/2
Cows.....	10 @ 12
Hind Quarters, choice.....	@ 16
Fore Quarters, choice.....	@ 11 1/2

Beef Cuts.

Cow Chucks.....	9 @ 9 1/2
Steer Chucks.....	10 1/2 @ 11
Boneless Chucks.....	@ 12
Medium Plates.....	@ 8 1/2
Steer Plates.....	@ 9
Cow Rounds.....	10 @ 12
Steer Rounds.....	12 @ 13
Cow Loins.....	11 1/2 @ 14 1/2
Steer Loins, Heavy.....	17 @ 18
Beef Tenderloins, No. 1.....	@ 25
Beef Tenderloins, No. 2.....	@ 20
Strip Loins.....	@ 12 1/2
Skirtloins.....	@ 15
Shoulder Clods.....	@ 9
Rolls.....	@ 15 1/2
Rump Butts.....	12 @ 14 1/2
Trimnings.....	@ 10
Shank.....	@ 7
Cow Ribs, Common, Light.....	9 1/2 @ 10
Cow Ribs, Heavy.....	@ 13 1/2
Steer Ribs, Light.....	@ 14 1/2
Steer Ribs, Heavy.....	@ 15 1/2
Loin Ends, steer, native.....	@ 16
Loin Ends, cow.....	@ 14
Hanging Tenderloins.....	@ 12
Flank Steak.....	@ 15
Hind Shanks.....	@ 6

Beef Offal.

Brains, per lb.....	8 @ 8 1/2
Hearts.....	@ 9 1/2
Tongues.....	@ 17 1/2
Sweetbreads.....	25 @ 28
Ox Tail, per lb.....	@ 9
Fresh Tripe, plain.....	@ 8
Fresh Tripe, H. C.....	@ 7 1/2
Brains.....	8 1/2 @ 9
Kidneys, each.....	7 1/2 @ 8

Veal.

Heavy Carcass, Veal.....	10 1/2 @ 11
Light Carcass.....	15 1/2 @ 16
Good Carcass.....	@ 17
Good Saddles.....	@ 17 1/2
Medium Racks.....	@ 14
Good Racks.....	@ 15

Veal Offal.

Brains, each.....	8 @ 8 1/2
Sweetbreads.....	@ 75
Plucks.....	@ 75
Heads, each.....	25 @ 30

Lambs.

Good Caul.....	@ 12
Round Dressing Lambs.....	@ 13 1/2
Saddles, Caul.....	@ 14
R. D. Lamb Racks.....	@ 10 1/2
Caul Lamb Racks.....	@ 10
R. D. Lamb Saddles.....	@ 16 1/2
Lamb Fries, per lb.....	@ 18
Lamb Tongues, each.....	@ 4
Lamb Kidneys, each.....	@ 1 1/2

Mutton.

Medium Sheep.....	@ 8
Good Sheep.....	@ 9 1/2
Medium Saddles.....	@ 9
Good Saddles.....	@ 9 1/2
Good Racks.....	@ 7 1/2
Medium Racks.....	@ 7
Mutton Legs.....	@ 11
Mutton Loins.....	@ 7
Mutton Stew.....	@ 7
Sheep Tongues, each.....	@ 2 1/2
Sheep Heads, each.....	@ 10

Fresh Pork, Etc.

Dressed Hogs.....	@ 12 1/2
Pork Loins.....	@ 14
Leaf Lard.....	@ 11 1/2
Tenderloins.....	@ 27
Spare Ribs.....	@ 11
Butts.....	@ 13
Hocks.....	@ 8
Trimnings.....	@ 11
Extra Lean Trimnings.....	@ 14
Tails.....	@ 9
Smouts.....	@ 7
Pigs' Feet.....	@ 4 1/2
Pigs' Heads.....	@ 6 1/2
Blade Bones.....	@ 9
Blade Meat.....	@ 10
Cheek Meat.....	@ 9
Hog Livers, per lb.....	4 1/2 @ 5
Neck Bones.....	@ 4
Skinned Shoulders.....	@ 12
Pork Hearts.....	@ 9
Pork Kidneys, per lb.....	@ 6 1/2
Pork Tongues.....	10 @ 13
Slip Bones.....	@ 6
Tail Bones.....	@ 7
Brains.....	@ 6
Backfat.....	@ 11 1/2
Hams.....	@ 16
Calas.....	@ 13
Bellies.....	@ 17 1/2
Shoulders.....	@ 12

SAUSAGE.

Columbia Cloth Bologna.....	@ 12
Bologna, large, long, round, in casings.....	@ 12

Choice Bologna.....	@ 15 1/2
Frankfurters.....	@ 13 1/2
Blood, Liver and Headcheese.....	@ 11 1/2
Tongue.....	@ 14
Mixed Sausage.....	@ 15 1/2
Luncheon Sausage, cloth paraffine.....	@ 18 1/2
New England Sausage.....	@ 18 1/2
Compressed Luncheon Sausage.....	@ 18 1/2
Special Compressed Ham.....	@ 18 1/2
Berliner Sausage.....	@ 16 1/2
Boneless Butts in casings.....	@ 19 1/2
Oxford Butts in casings.....	@ 19 1/2
Polish Sausage.....	@ 13 1/2
Garlic Sausage.....	@ 13 1/2
Country Smoked Sausage.....	@ 16 1/2
Farm Sausage.....	@ 17
Pork Sausage, bulk or link.....	@ 13 1/2
Pork Sausage, short link.....	@ 14
Boneless Pigs' Feet.....	@ 10 1/2
Luncheon Roll.....	@ 18
Delicatessen Loaf.....	@ 18 1/2
Jellied Roll.....	@ 18 1/2

Summer Sausage.

Best Summer, H. C. (new).....	— @ —
German Salami (new).....	@ 24
Italian Salami.....	@ 26 1/2
Holsteiner.....	@ 20
Mettwurst, New.....	— @ —
Farmer.....	@ 22

Sausage in Oil.

Smoked Sausage, 1-30.....	\$6.50
Smoked Sausage, 2-20.....	6.00
Bologna, 1-50.....	6.00
Bologna, 2-20.....	5.50
Frankfurt, 1-50.....	6.50
Frankfurt, 2-20.....	6.00

VINEGAR PICKLED GOODS.

Pickled Pigs' Feet, in 200-lb. barrels.....	\$11.50
Pickled Plain Tripe, in 200-lb. barrels.....	9.00
Pickled H. C. Tripe, in 200-lb. barrels.....	10.50
Pickled Ox Lips, in 200-lb. barrels.....	15.50
Pickled Pigs' Snouts, in 200-lb. barrels.....	34.50
Lamb Tongues, Short Cut, barrels.....	

CORNED, BOILED AND ROAST BEEF.

1 lb., 2 doz. to case.....	Per doz. \$2.45
2 lbs., 1 or 2 doz. to case.....	4.05
6 lbs., 1 doz. to case.....	17.85
14 lbs., 1/2 doz. to case.....	38.80

EXTRACT OF BEEF.

2-oz. jars, 1 doz. in box.....	Per doz. \$3.50
4-oz. jars, 1 doz. in box.....	6.75
8-oz. jars, 1/2 doz. in box.....	12.00
16-oz. jars, 1/2 doz. in box.....	23.50
2, 5 and 10-lb. tins.....	\$1.50 per lb.

BARRELED BEEF AND PORK.

Extra Plate Beef, 200-lb. barrels.....	— @ —
Flate Beef.....	@ 17.00
Prime Mess Beef.....	— @ —
Extra Mess Beef.....	— @ —
Beef Hams (220 lbs. to bbl.).....	— @ —
Rump Butts.....	@ 22.00
Mess Pork, old.....	@ 23.00
Clear Fat Backs.....	@ 21.25
Family Back Pork.....	@ 25.00
Bean Pork.....	@ 19.00

LARD.

Pure leaf, kettle rendered, per lb., tes.....	@ 13 1/4
Pure lard.....	@ 12 1/4
Lard substitutes, tes.....	@ 9 1/2
Lard, compound.....	@ 9 1/2
Cooking oil, per gal. in barrels.....	@ 60
Cooks' and bakers' shortening, tubs.....	@ 12 1/4
Barrels, 1/4 c. over tierces; half barrels, 1/4 c. over tierces; tubs and pails, 10 to 80 lbs., 1/4 to 1 c. over tierces.....	

BUTTERINE.

1 to 6, natural color, solids, f. o. b. Chi- cago.....	15 1/2 @ 19 1/2
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DRY SALT MEATS.

(Boxed. Loose are 1/4 c. less.)	
Clear Bellies, 14 @ 16 avg.....	@ 13 1/2
Clear Bellies, 18 @ 20 avg.....	@ 13 1/2
Rib Bellies, 18 @ 20 avg.....	@ 13
Fat Backs, 12 @ 14 avg.....	@ 10 1/2
Regular Plates.....	@ 11 1/2
Clear Plates.....	@ 10 1/2
Butts.....	@ 9 1/2
Bacon meats, 1/4 c. to 1 c. more.....	

WHOLESALE SMOKED MEATS.

Hams, 12 lbs., avg.....	@ 17
Hams, 16 lbs., avg.....	@ 16 1/2
Skinned Hams.....	@ 16 1/2
Calas, 4 @ 6 lbs., avg.....	@ 12 1/2
Calas, 6 @ 12 lbs., avg.....	@ 12 1/2
New York Shoulders, 8 @ 12 lbs., avg.....	@ 14
Breakfast Bacon, fancy.....	@ 24 1/2
Wide, 10 @ 12 avg., and strip, 5 @ 4 avg.....	@ 17 1/2
Wide, 6 @ 8 avg., and strip, 3 @ 4 avg.....	@ 18 1/2
Rib Bacon, wide, 8 @ 12, strip, 4 @ 8 avg.....	@ 20 1/2
Dried Beef Sets.....	@ 32
Dried Beef Inside.....	@ 31
Dried Beef Knuckles.....	@ 30
Smoked Boiled Hams.....	@ 22 1/2
Boiled Calas.....	@ 23
Boiled Loin Rolls.....	@ 17 1/2
Cooked Loin Rolls.....	@ 29
Cooked Rolled Shoulders.....	@ 17 1/2

SAUSAGE CASINGS.

F. O. B. CHICAGO.

Rounds, per set.....	@ 18
Export Rounds.....	@ 24
Middles, per set.....	@ 21
Beef bungs, per piece.....	@ 19
Beef weasands.....	@ 6 1/2
Beef bladders, small, per doz.....	@ 45
Beef bladders, free of salt.....	@ 75
Hog casings, free of salt.....	@ 70
Hog middies, per set.....	@ 11
Hog bungs, export.....	@ 18 1/2
Hog bungs, large, mediums.....	@ 16
Hog bungs, prime.....	@ 7
Hog bungs, narrow.....	@ 4
Imported wide sheep casings.....	@ 90
Imported medium wide sheep casings.....	@ 70
Imported medium sheep casings.....	@ 90
Hog stomachs, per piece.....	@ 4

FERTILIZERS.

Dried blood, per unit.....	3.25 @ 3.27 1/2
Hoof meal, per unit.....	2.90 @ 3.00
Concentrated tankage.....	2.85 @ 3.00
Ground tankage, 12%.....	@ 3.07 and 10c.
Ground tankage, 11%.....	@ 3.07 and 10c.
Ground tankage, 8 and 25%.....	@ 2.80 and 10c.
Crushed tankage, 9 and 20%.....	@ 2.75 and 10c.
Ground tankage, 6 1/2 and 30%.....	21.00 @ 21.50
Ground rawbone, per ton.....	24.00 @ 25.00
Ground steam bone, per ton.....	22.00 @ 22.25
Unground tankage, per ton less than ground.....	@ 50c.

HORNS, HOOFS AND BONES.

Horns, No. 1, 65 @ 70 lbs., aver.....	250.00 @ 275.00
Hoofs, black, per ton.....	25.00 @ 27.00
Hoofs, striped, per ton.....	35.00 @ 40.00
Hoofs, white, per ton.....	65.00 @ 70.00
Flat shin bones, 40 lbs. av., per ton.....	70.00 @ 75.00
Round shin bones, 38-40 lbs. av., per ton.....	75.00 @ 80.00
Round shin bones, 50-52 lbs. av., per ton.....	80.00 @ 90.00
Long thigh bones, 90-95 lbs. av., per ton.....	85.00 @ 95.00
Skulls, jaws and knuckles, per ton.....	28.00 @ 30.00

LARD.

Prime steam, cash.....	@ 10.67 1/2
Prime steam, loose.....	@ 10.45
Leaf.....	@ 10 1/2
Compound.....	9 @ 9 1/4
Neutral lard.....	11 1/2 @ 12

STEARINES.

Prime oleo.....	11 1/2 @ 11 1/2
Oleo, No. 2.....	9 1/2 @ 10 1/4
Mutton.....	@ 10 1/2
Tallow.....	8 1/4 @ 8 1/2
Grease, yellow.....	6 1/2 @ 6 1/2
Grease, A white.....	6 1/2 @ 7 1/2

OILS.

Lard oil, extra, winter strained, tierces.....	71 @ 73
Extra lard oil.....	68 @ 68
Extra No. 1 lard oil.....	60 @ 62
No. 1 lard oil.....	53 @ 55
No. 2 lard oil.....	52 @ 54
Oleo oil, extra.....	10 1/4 @ 10 1/2
Oleo oil, No. 2.....	9 1/2 @ 9 1/2
Oleo stock.....	9 @ 10 1/4
Nutsfoot oil, pure, bbls.....	68 @ 72
Acidless tallow oils, bbls.....	62 @ 64.50
Corn oil, loose.....	5.80 @ 5.85
Horse oil.....	6 1/2 @ 6 1/2

TALLOW.

Edible.....	8 1/4 @ 8 1/2
Prime city.....	7 1/2 @ 8
No. 1 Country.....	6 1/2 @ 6 1/2
Packers' Prime.....	7 1/2 @ 7 1/2
Packers' No. 1.....	6 1/2 @ 7
Packers' No. 2.....	5 1/4 @ 5 1/4
Renderers' No. 1.....	6 1/2 @ 6 1/2

GREASES.

White, choice.....	7 @ 7 1/2
White, "A".....	6 1/2 @ 6 1/2
White, "B".....	6 1/2 @ 6 1/2
Bone.....	6 1/2 @ 6 1/2
Crackling.....	6 1/2 @ 6 1/2
House.....	5 1/2 @ 6
Yellow.....	6 @ 6 1/4
Brown.....	5 @ 5 1/2
Glue stock.....	5 1/2 @ 5 1/2
Garbage grease.....	4 1/4 @ 4 1/4
Glycerine, C. P.....	20 1/4 @ 20 1/4
Glycerine, dynamite.....	19 1/4 @ 20 1/4
Glycerine, crude soap.....	13 1/4 @ 14
Glycerine, candle.....	15 1/4 @ 15 1/4

COTTONSEED OILS.

P. S. Y., loose.....	52 @ 52 1/2
P. S. Y., soap grade.....	47 1/2 @ 48 1/2
Soap stock, bbls., concn., 62 @ 65% f. a.....	2 1/2 @ 2 1/2
Soap stock, loose, reg., 50% f. a.....	1.35 @ 1.45

COOPERAGE.

Ash pork barrels.....	80 @ 82
Oak pork barrels.....	90 @ 92
Lard tierces.....	1.15 @ 1.22 1/2

CURING MATERIALS.

Refined saltpetre.....	5 1/4 @ 6 1/4
Boric acid, crystal to powdered.....	7 @ 7 1/2
Borax.....	4 @ 4 1/2
Sugar—	
White, clarified.....	@ 4 1/2
Plantation, granulated.....	@ 4 1/2
Yellow, clarified.....	@ 4
Salt—	
Ashton, in bags, 224 lbs.....	\$2.25
English packing, in bags, 224 lbs.....	1.45
Michigan, granulated, car lots, per ton.....	3.25
Michigan, medium, car lots, per ton.....	3.75
Casing salt, bbls., 280 lbs., 2x @ 3x.....	1.40

LIVE STOCK MARKETS

CHICAGO

(Special Letter to The National Provisioner from the National Live Stock Commission Co.)

Union Stock Yards, Chicago, Nov. 26.

As predicted, Monday's run of cattle was light, actual receipts being 15,507 head, which was a fortunate circumstance for the live-stock man, as the heavy receipts of the past few weeks resulted in congesting beef channels to such an extent that a very light supply was the only means of relief for him. The trade was slow to start, sellers asking 15@25c. advance all along the line, while buyers, on the other hand, made strenuous efforts to avoid any advance in the market, and while the heavy beefs, particularly the plain rough kinds, were especially slow sellers and showed the minimum improvement, the general trade, nevertheless, finally rounded into a 10@15c. higher market. Tuesday's moderate run of 3,758 cattle met with a firm and rather active demand, Monday's advance being well sustained, and we disposed of quite a few loads of near-by steers at prices that were fully as good; in fact, in some cases a shade stronger than Monday's general level of values. Wednesday's meager run of 10,000 cattle included about 2,000 canners direct to the packers from the Eastern markets, and the three days receipts totaled 29,000, as compared with 52,500 for the same period a week ago, and the market ruled active and 10@15c. higher, making an advance of 25c. per cwt. for the week.

The greatly curtailed receipts of cattle this week include but a light percentage of butcher stuff and a reaction from last week's low spot in the trade has taken place. Wednesday's market ruled strong and active with values anywhere from 10@25c. higher than the low spot at last week's close with the least advance on the low-priced "she" stuff, such as canners and cutters, and most improvement on the medium kinds of heifers.

With a moderate run of 30,000 hogs Wednesday, the market ruled about 5c. higher, bulk of the fair to good butchers selling \$7.70@7.80, with some fancy ones up to \$7.90; medium and heavy packing grades where well fattened and smooth going largely at \$7.65@7.80; fair to good mixed, \$7.50@7.65; light and light mixed, \$7.40@7.55; light light weighing 140 to 160 pounds, around \$7.10@7.40; pigs largely at 5½@6½c. per pound. It looks as if prices have got pretty nearly, if not quite, as low as they are going this season, and indications are that prices will soon show a tendency to advance some, although we may not see very much advance for awhile, but expect to see very strong markets after the holidays.

The trade has been active and strong in sheep and lambs since the opening of the week, prices gradually trending upward and up until 10:30 A. M. Wednesday sales showed an advance of about 10c. over Tuesday's average. We quote: Good to choice lambs, \$7.65@7.80; poor to medium, \$7@7.40; culls, \$5@5.25; fat-light yearlings, \$6.25@6.60; fat heavy yearlings, \$5.75@6.25; fat wethers, \$4.90@5.15; fat ewes, \$4.40@4.65; poor to medium, \$3.75@4.25; culls, \$2.50@3.50; bucks, \$3.50@3.75; feeding lambs, \$6.50@6.85; feeding wethers, \$4.50@4.75; feeding yearlings, \$5.60@5.75.

KANSAS CITY

(Special Letter to The National Provisioner.)

Kansas City Stock Yards, Nov. 25, 1913.

Cattle receipts dropped to 9,000 head today, which proved helpful to prices, and killing grades sold strong to 10c. higher. No prime cattle were here today, the best stopping at \$8.20, but bulk of native steers are quotable at \$7.20@8.25, and toppey ones around \$8.50. Canners are the one most salable article on the list, and killers take as many as they can get. Slack country demand is putting a few thin steers into their hands, and some Old Mexicos have helped out orders for canning

material this week, 14 loads here yesterday, 761 pounds average, at \$5.50. A train of 19 cars of Old Mexicos is expected for tomorrow's market. These cattle have all been grazed a few weeks in Texas. A better line of quarantine cattle was offered today than heretofore, meal fed steers selling at \$6.65@7.40, but receipts in that division are running light, 15 cars there today. Butcher grades have held up better than steers, and also caught the advance today, best native cows ranging from \$5.75@6.75, bulls \$5.50@6.50. Range cattle are in much smaller supply this week, and are confined to a few trains of Northwest Texas stuff, practically no Colorados here.

Hogs continue to come liberally, 20,000 here today, market 10@20c. lower, the most decisive decline registered recently. Top hogs here sold at \$7.75, same as top in Chicago today, and bulk at \$7.35@7.65, the latter figure the best price paid by packers today. Hogs are running very healthy, but average weights are lightest of the year, 176 pounds average last week, receipts thus furnishing plenty of hogs suitable for making bacon. Demand for light weights is large, and heavier weights lead only by a margin of 5@10c.

Sheep and lambs are higher this week, including a good advance today, best lambs at \$7.50 today, others down to \$7; feeding lambs \$5.90@6.25; fat yearlings, \$5.25@6; wethers, \$4.50@5; ewes, \$4@4.60. Receipts today, 9,000.

ST. LOUIS

(Special Letter to The National Provisioner.)

National Stock Yards, Ill., November 26.

The receipts of cattle for the week ending today amount to 15,091 head, including 7,335 Southern. Although there was a fair run of beef steers this week, the quality generally was not as good as that of last week. Steers of good quality topped for the week at \$8.65. It is generally stated that steers of choice quality would bring 9c. or possibly \$9.15. From the opening of last week until Monday the market was a very slow draggy affair. Monday, however, prices took on a stronger tendency and on Tuesday an advance of 10@15c. was shown, while today prices still show an upward feeling. Heifers topped for the week at \$8.50, which shows far better values than were in force the latter part of the previous week. This grade shows a full quarter advance over the previous week. Cows topped for week at \$7. The bulk of the good ones, however, sold in a range of \$5.75@6.50. This grade shows an advance over the close of last week. Veal calves sold generally around \$10 during the entire week. Texas and Oklahoma fed steers are beginning to arrive. The feature sale for the week on the quarantine side being 6 loads of Texas full fed steers of good quality, averaging 1,085, which brought \$7.35. Very few offerings from Texas or Oklahoma have arrived for several weeks past, but from this sale prices look as if they were on a stronger basis. Other quarantine offerings sold generally on a stronger basis.

Hog receipts for the week ending today amount to 56,982. Hog values from the opening of the week have generally had a downward tendency, values having declined since Wednesday from 10@20c., there being a few fluctuations during the week. Good heavies have been mostly in demand, there being a good shipping trade on this kind. The market closed today with a top of \$7.85, and the bulk at \$7.45@7.75.

Approximately 11,898 sheep were received during the week, this being only a moderate supply. Lambs of good quality are about 25c. higher as compared with the close of last week, while sheep show an advance of 20c. for the same period. Today one full load of Northern Iowa lambs topped the market for the week at \$7.75, while mutton sheep brought the highest price of the week today at \$4.60.

OMAHA

(Special Letter to The National Provisioner.)

South Omaha, Neb., Nov. 25, 1913.

Notwithstanding a considerable falling off in cattle receipts, declines in prices have been very general. Unseasonably mild weather, the glut of beef in the East and the abundance of poultry for the Thanksgiving season have all been bearish features, and values declined anywhere from 25@75c. last week on both native and range beef. Part of this decline has been regained this week, but the undertone to the trade is still decidedly weak. Choice yearlings are quoted at \$8.75@9.25, and choice heavy beefs at \$8.25@8.60. Fair to pretty good 1,050 to 1,300-pound beefs are selling largely at \$7.50@8.25, and common to fair warmed up and short fed grades at \$6.25@7.25 and on down. Range beef is selling at a range of \$5.75@7.75, the bulk of the fair to good kinds at \$6.75@7.25. There was also a sharp break in cows and heifers which has been partly recovered this week. The range is practically from \$4.25@7.25, the big bulk of the fair to good butcher and beef stock going at \$5.25@6.25. Veal calves continue in keen request and quotably firm at \$6@10.

Under the influence of very liberal supplies of hogs the market has been rather draggy of late with the trend of values lower all along the line. The demand is broad enough, but both local packers and shippers are very bearish and are trying hard to force values to a lower basis. Heavy and butcher hogs still command a good premium and all class of buyers are discriminating against the underweight stuff and pigs, the latter being slow sale at from 50@75c. under prices for the bulk of the good hogs. There were nearly 12,000 hogs here today, and the market was about 10@15c. lower. Tops brought \$7.70, as against \$7.75 last Tuesday, and the bulk of the trading was at \$7.40@7.60, as against \$7.50@7.70 one week ago.

Supplies of sheep and lambs have been fairly liberal of late, but with a vigorous demand from both packers and feeder buyers the market has developed considerable strength and the tone to the trade has been healthy and strong. Good fat lambs are selling at \$6.80@7.60; yearlings, \$5.50@6.10; wethers, \$4@4.65, and ewes, \$3.85@4.50.

SLAUGHTER REPORTS

Special reports to The National Provisioner show the number of livestock slaughtered at the following centers for the week ending November 22, 1913:

CATTLE.	
Chicago	35,718
Kansas City	27,100
Omaha	9,132
St. Joseph	8,997
Cudahy	588
Sioux City	1,092
South St. Paul	5,429
New York and Jersey City	12,873
Fort Worth	8,575
Philadelphia	2,617
Pittsburgh	2,551
Denver	1,386
Oklahoma City	3,830
Wichita	1,103
Cincinnati	4,215
HOGS.	
Chicago	153,639
Kansas City	61,565
Omaha	55,024
St. Joseph	56,832
Cudahy	16,643
Sioux City	17,530
Ottumwa	20,300
Cedar Rapids	12,957
South St. Paul	28,525
New York and Jersey City	41,309
Fort Worth	7,494
Philadelphia	5,997
Pittsburgh	15,446
Denver	4,754
Oklahoma City	7,945
Wichita	11,000
Cincinnati	11,127
SHEEP.	
Chicago	67,697
Kansas City	17,405
Omaha	26,330
St. Joseph	4,001
Cudahy	502
Sioux City	6,224
South St. Paul	6,783
New York and Jersey City	44,049
Fort Worth	2,932
Philadelphia	10,390
Pittsburgh	7,605
Denver	3,227
Wichita	339

THE WEEK'S CLOSING MARKETS

FRIDAY'S GENERAL MARKETS.

Lard in New York.

New York, November 28.—Market steady; Western steam, \$11.05; Middle West, \$10.90 @11; city steam, 10½c.; refined Continent, \$11.65; South American, \$12.30; Brazil, kegs, \$11.30; compound, 8½@8¾c.

Marseilles Oils.

Marseilles, November 28.—Sesame oil, fabrique, — fr.; edible, — fr.; copra oil, fabrique, 117½ fr.; edible, 132 fr.; peanut oil, fabrique, 85½ fr.; edible, 99 fr.

Liverpool Produce Market.

Liverpool, November 28.—(By Cable).—Beef, extra India mess, 122s. 6d.; pork, prime mess, 108s. 9d.; shoulders, square, 62s. 6d.; New York, 61s. 6d.; picnic, 51s.; hams, long, 65s.; American cut, 66s. Bacon, Cumberland cut, 65s. 6d.; long clear, 76s. 6d.; short backs, 70s. 6d.; bellies, clear, 70s. 6d. Lard, spot prime, 55s. 9d. American refined in pails, 57s. 3d.; 28-lb. blocks, 55s. 9d. Lard (Hamburg), 54¼ marks. Tallow, prime city, 32s. 6d.; choice, 36s. Turpentine, 32s. 6d. Rosin, common, 10s. 3d. Cheese, Canadian finest white, new, 64s. 6d. Tallow, Australian (at London), 32s. 9d. @35s.

FRIDAY'S CLOSINGS.

Provisions.

Prices were a little firmer on the better hog market at Western packing points and limited contract offerings.

Stearine.

Trade is very quiet with the demand small. Prices are quoted at 10½@11c.

Tallow.

Prices are firm with a fair demand and light offerings. Prices are quoted at 6½c. for city and 7½c. for specials.

Cottonseed Oil.

The market was very quiet with trade showing very little change. Prices show very limited change from day to day.

Market closed steady, 1 to 2 points advance. Sales, 6,600 bbls. Spot oil, \$7.08 bid. Crude, Southeast, sales at \$6. Closing quotations on futures: December, \$7.09@7.10; January, \$7.14@7.15; February, \$7.16@7.20; March, \$7.23@7.25; April, \$7.27@7.31; May, \$7.36@7.37; June, \$7.40@7.42; July, \$7.46@7.47; good off oil, \$6.85@7.10; off oil, \$6.55@6.70; red off oil, \$6.40@6.50; winter oil, \$7.50 @8; summer white, \$7.40@7.75.

FRIDAY'S LIVESTOCK MARKETS.

Chicago, November 28.—Hog market strong and 5c. higher. Bulk of prices, \$7.55@7.80; light, \$7.10@7.75; mixed, \$7.35@7.90; heavy, \$7.40@7.90; rough heavy, \$7.40@7.55; Yorkers, \$7.60@7.70; pigs, \$5@7. Cattle, slow and steady; beefs, \$6.60@9.50; cows and heifers, \$3.35@8.15; Texas, steers, \$6.60@6.75; stockers and feeders, \$4.80@7.40; Western, \$5.90@7.80. Sheep market slow and steady; native, \$3.90@5.10; Western, \$3.90@5.10; yearlings, \$5.20@6.50; lambs, \$6@7.65; Western, \$6@7.65.

Sioux City, November 28.—Hogs higher, at \$7.15@7.55.

St. Louis, November 28.—Hogs higher, at \$7.45@7.85.

Buffalo, November 28.—Hogs higher, 9,000 on sale; price, \$7.90@8.10.

Kansas City, November 28.—Hogs higher, at \$7@7.67½.

South Omaha, November 28.—Hogs strong, at \$6.90@7.60.

St. Joseph, November 28.—Hogs higher, at \$7.30@7.70.

Louisville, November 28.—Hogs higher, at \$7.45@7.90.

Indianapolis, November 28.—Hogs higher, at \$7.50@8.

RECEIPTS AT CENTERS

SATURDAY, NOVEMBER 22, 1913.

	Cattle.	Hogs.	Sheep.
Chicago	600	35,000	1,500
Kansas City	300	9,000	1,000
Omaha	100	5,000	100
St. Louis	500	8,000	150
St. Joseph	100	7,000	200
Sioux City		3,000	
St. Paul	300	2,300	9,000
Oklahoma City		300	
Fort Worth	1,000	500	300
Milwaukee		3,382	
Louisville	300	941	50
Detroit		300	
Wichita		2,170	
Indianapolis	200	6,000	
Pittsburgh		4,000	1,000
Cincinnati	148	2,429	210
Cleveland	300	2,000	2,400
Buffalo	1,300	6,400	2,000
New York	912	2,580	3,102

MONDAY, NOVEMBER 24, 1913.

Chicago	16,000	35,000	38,000
Kansas City	16,000	9,000	12,000
Omaha	3,000	5,000	14,000
St. Louis	4,500	8,000	5,000
St. Joseph	1,400	4,500	2,500
Sioux City	2,500	3,000	1,500
St. Paul	3,800	9,000	6,900
Fort Worth	5,300	3,500	500
Milwaukee		4,661	
Toledo		3,000	
Louisville	1,700	4,586	150
Detroit		200	
Indianapolis		3,000	
Pittsburgh	2,400	10,000	9,000
Cincinnati	1,481	5,002	965
Cleveland	600	5,000	4,000
Buffalo	5,300	20,000	16,600
New York	3,356	11,601	9,571

TUESDAY, NOVEMBER 25, 1913.

Chicago	4,500	25,000	25,000
Kansas City	7,500	19,000	8,000
Omaha	2,600	12,000	12,500
St. Louis	3,000	10,000	2,000
St. Joseph	1,300	10,500	4,000
Sioux City	600	4,000	1,000
St. Paul	1,500	7,000	7,000
Oklahoma City	1,400	1,700	
Fort Worth	4,500	1,800	800
Milwaukee	400	4,816	400
Louisville		616	
Detroit		300	
Cudahy		7,000	
Wichita		3,174	
Indianapolis		10,000	
Pittsburgh		2,500	1,000
Cincinnati	265	1,886	322
Cleveland	80	2,000	800
Buffalo	400	3,200	800
Boston	3,534	30,736	19,124
New York	775	3,337	2,566

WEDNESDAY, NOVEMBER 26, 1913.

Chicago	11,000	30,000	23,000
Kansas City	4,000	9,000	3,500
Omaha	1,400	9,000	4,000
St. Louis	1,600	7,000	1,500
St. Joseph	600	8,000	2,100
Sioux City	800	4,000	200
St. Paul	1,000	6,000	4,700
Oklahoma City	200	800	
Fort Worth	3,700	2,000	1,000
Milwaukee	400	7,395	100
Denver	1,000	400	4,800
Louisville		2,341	
Detroit		2,000	
Indianapolis	950	10,000	
Pittsburgh		1,500	1,000
Cincinnati	260	2,892	638
Cleveland	100	2,000	1,200
Buffalo	300	1,800	2,000
New York	1,458	3,347	5,126

THURSDAY, NOVEMBER 27, 1913.

Holiday.

FRIDAY, NOVEMBER 28, 1913.

Chicago	5,000	24,000	16,000
Kansas City	1,500	5,500	2,000
Omaha	1,300	6,000	8,000
St. Louis	1,300	12,000	2,400
St. Joseph	700	6,800	200
Sioux City	400	1,700	300
Fort Worth	4,000	2,500	500
St. Paul	600	3,700	400
Oklahoma	500	900	

PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ending Saturday, November 22, 1913, are reported as follows:

Chicago.

	Cattle.*	Hogs.	Sheep.*
S. & S. Co.	5,314	17,500	8,635
Armour & Co.	7,809	35,400	19,741
Swift & Co.	6,851	24,400	23,618
Morris & Co.	6,254	13,000	10,801
G. H. Hammond Co.	2,398	9,800	...
Libby, McNeill & Libby	2,600	...	...

Anglo-American Provision Co., 7,800 hogs; Boyd, Lunham & Co., 6,100 hogs; Western Packing & Provision Co., 9,500 hogs; Roberts & Oake, 5,600 hogs; Miller & Hart, 3,100 hogs; Independent Packing Co., 6,500 hogs; Brennan Packing Co., 5,500 hogs; others, 6,900 hogs.

*Incomplete.

Kansas City.

	Cattle.	Hogs.	Sheep.
Armour & Co.	4,122	18,283	2,642
Fowler Packing Co.	800	...	492
S. & S. Co.	4,292	11,576	2,103
Swift & Co.	6,641	10,496	4,990
Cudahy Packing Co.	5,427	10,394	5,554
Morris & Co.	5,577	10,373	1,587
Butchers	241	743	37

Blount, 140 cattle and 1,007 hogs; Dold Packing Co., 1,265 hogs; Independent Packing Co., 295 cattle; S. Kraus, 33 cattle; John Morrell & Co., 625 cattle; I. Myers, 93 cattle; M. Rice, 918 hogs; Schwartz, Bolen & Co., 1,050 hogs; E. Storm, 17 cattle; Wolf Packing Co., 123 cattle.

Omaha.

	Cattle.	Hogs.	Sheep.
Morris & Co.	1,725	8,548	2,769
Swift & Co.	2,762	11,911	7,437
Cudahy Packing Co.	3,547	18,155	10,969
Armour & Co.	2,387	18,399	9,830
Swartz & Co.	...	404	...
J. W. Murphy	...	2,786	...

Lincoln Packing Co., 54 cattle; South Omaha Packing Co., 5 cattle; John Morrell & Co., 43 cattle; Hoffmann Bros., 33 hogs; Kohrs Packing Co., 506 hogs.

St. Louis.

	Cattle.	Hogs.	Sheep.
Morris & Co.	3,328	9,139	1,022
Swift & Co.	4,659	9,418	1,978
Armour & Co.	5,060	10,297	1,112
St. Louis Dressed Beef Co.	620	...	...
Independent Packing Co.	634	4,814	134
East Side Packing Co.	188	3,363	...
Belz Packing Co.	...	1,123	...
Hell Packing Co.	...	1,800	...
Krey Packing Co.	...	1,607	...
Carondelet Packing Co.	11	613	91

St. Joseph.

	Cattle.	Hogs.	Sheep.
Swift & Co.	2,400	23,857	1,700
G. H. Hammond Co.	1,100	14,610	1,046
Morris & Co.	1,500	15,142	881

Sioux City.

	Cattle.	Hogs.	Sheep.
Armour & Co.	873	9,007	1,724
Cudahy Packing Co.	633	9,179	4,524
Sacks Dressed Beef Co.	76	...	27
Swift & Co.	...	2,154	...

R. Hurn Packing Co., 190 cattle; Statter & Co., 73 cattle; Brennan Packing Co., 42 cattle; regular buyers, 3,088 cattle; country buyers, 3,329 cattle and 2,791 sheep.

NEW YORK LIVE STOCK

WEEKLY RECEIPTS TO NOVEMBER 24, 1913.

	Bees.	Calves.	lams.	Hogs.
New York	3,167	3,281	3,712	5,971
Jersey City	4,272	1,694	20,510	30,115
Central Union	2,964	400	12,297	273
High Valley	2,470	362	4,530	—
Scattering	—	134	—	4,950
Totals	12,873	5,271	44,049	41,309
Totals last week	14,026	6,298	50,854	41,271

OLEO OIL AND NEUTRAL LARD.

(Special Report to The National Provisioner.)

New York, November 26, 1913.—The oleo oil markets during the present week have been extremely quiet; supplies of oleo are moderate, except of the lower grades, which are in small compass. The demand for neutral lard is slow, but the production and stocks of these goods are decidedly small. The lard market has made but few fluctuations this week; tallow has held its own, but the price for oleo stearine is strongly on the down grade. The business during the present week with Europe in butter oil has been at a minimum. Consumption in United States continues very good. The demand for export at the moment is slack.

Packinghouse, provision, refrigeration and other machinery and equipment at second-hand. Buy it or sell it through The National Provisioner's "Wanted and For Sale" department.

Retail Section

PRACTICAL TALKS WITH SHOP BUTCHERS

Old and New Ways of Handling Holiday Trade

By a Veteran Retailer.

In the good old days (so called) scarcely if ever a retail butcher could say truthfully that he had made money on poultry during the Thanksgiving holidays—and very often the Christmas and New Year's holidays were included. These holidays have usually been a source of dread instead of a joyful prospect for a money-making season.

As usual, the fault lay largely with the butcher himself. The explanation is short and concise—display and over-stocked. That's it in a nutshell.

When turkeys were sold at wholesale from 12 to 16 cents per pound the butcher who really needed five or six barrels usually bought eight or ten barrels. And the butcher who needed eight or ten barrels would buy twelve or fifteen barrels, and so on.

He would bring them to his shop and hang his show windows as full as he could possibly cram them. Every hook simply had to have a turkey hanging on it. And not alone turkeys. The floors of the shop windows had to be packed with fowl, chickens, ducks, geese, etc., packed as tightly as possible, one next to the other, with chopped parsley or mint scattered over them, to make them look pretty.

And two or three gas jets were left burning all night, so a few cheap shoppers who might pass by during the night would know it was a butcher shop, and would have poultry for sale the next day. Otherwise, how could the passing public know it? The fact of a shop being established from 10 to 20 years and every man, woman and child within ten blocks knowing that the market was in the same place as usual made no difference.

There simply must be a dead poultry exhibition in the windows each holiday eve—with the usual result, a serious monetary loss—and for reasons that every butcher knows, or should know.

Loss Due to Display and Handling.

A turkey hanging exposed in a window over night loses at least a half pound in weight, particularly dry packed ones. Some butchers have as many as four rails in each window, with from 12 to 15 hooks on each rail; about 50 turkeys in each window, or 100 in both windows.

That is a loss in weight of 50 pounds before even a bird is sold. This, with the two or three days they are on the road to market; the length of time they are standing in the wholesale houses; the constant handling by possible purchasers; then the buyer himself looks them over, has them again unpacked, weighed, repacked, carted to his shop, unpacked, reweighed, wiped off, tied and hung in the windows and shop—which means constantly slamming them about; then the 10 or 12 hours in a closed shop with the window lights constantly increasing heat, forming gases in the undrawn birds; the continued handling the following day

while being sold, until they are hardly in a fit condition to be eaten.

In addition to this, each time the bird is handled another bit of the thin tender skin is broken or bruised, and the air dries these spots until they stand out in all the colors of autumn leaves. Many of them, particularly the thin ones, become almost a complete mass of dried skin all run together, until they are almost disgusting to look at, and of course they won't sell.

All this causes dissatisfaction to the customers; allowances are made; there is loss of trade; and last, but by no means least, turkeys that are carried over until evening are positively indecent as to appearance and odor. And the whole world of butcherdom knows that when the business day is drawing to a close they strike anxiously to get rid of what is left at any old price. Having the unsightly things hanging around makes them lose value in the eyes of boss and journeyman alike.

That's what the shoppers who passed by the evening before are waiting for—bargains—and they usually get them. That's when the price-slashing begins. If there are any poor unfortunate birds left the next morning the slashing of prices continues with renewed vigor.

And nine out of ten butchers say: "Well, I got my price all morning, and I could afford to sell what was left at a low price." But he's a liar, he couldn't! He knows he couldn't, but he wouldn't even admit it to himself.

And all this because he was over-stocked. He probably went to market with the firm resolve of buying just what turkeys he needed for his business. But after having purchased the required amount he ran across a few job lots here and there, on which he fancied he saved a penny or two a pound. He couldn't resist the "bargain," and then his trouble began.

Moral: When through buying on a cheap market, go home immediately!

That's the story of the butcher when turkeys were cheap and he couldn't make any money. But how different these past few years, when turkeys brought from 20 to 35 cents per pound. The butcher goes to market with the same fixed resolve to buy just what he needs. And, behold, this time he does it. Why? He has to. It would be financial suicide if he did otherwise.

How It Has to Be Done Today.

When it comes to paying from \$2.50 to \$3 apiece for turkeys, the dealer is going to be mighty careful how many birds he buys. He even counts them; then he chases them home, and doesn't linger about looking for bargains. At home they are handled as tenderly as sticks of dynamite, and very carefully graded and hung in the cooler over night.

Window displays? Hardly. The next morning a few at a time are brought out, and when they are sold a few more take their place. And all hands, from the boss down, are careful to select to be sold first those that have a defect here and there, such as a bent breast-bone, a broken wing or torn skin. So the very best are held back to the last, aside from filling special orders to be sold at a fancy price.

And if business is a bit slow during the day the rest of the turkeys are brought out, looking fine and fresh, the flesh firm and hard and pleasing to the eye, and a good price can be asked and is usually received. A dealer can afford to demand what they are worth, as it is looks that usually sell turkeys. He doesn't have to take \$3 for a bird that is worth \$3.10.

The journeymen are just as careful. Each turkey has a certain value in their eyes. And when closing time comes there is a feeling of satisfaction at the results of the day's business, and the atmosphere is not tainted with the odor of sour fat boxes; nor the butcher's hands, either.

It does seem a paradox that a man should lose money when he buys cheap goods, and make money when he buys high-priced goods, particularly at Thanksgiving time, when turkeys are usually thin and lean and really require careful handling. While the market

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UNIVERSAL MANIFOLD-BOOK CO., Inc.

Manufacturers and Devisers of

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79 Chambers Street

New York

this year was not as high as a year or two ago, it was still high enough to make caution the watchword of the retailer, and bargain sales very much in evidence by their absence—which is as it should be! L. A.

LOCAL AND PERSONAL.

Sam Kreager has purchased the meat market of F. C. Lukritz at Minneapolis, Kan.

John McCauley has closed his meat business at Boozville, Ga.

J. E. Ritter has opened up a meat market at Enid, Okla.

Fletcher & Keeler have purchased the meat market of Charles London at Waterloo, Ia.

Castleberry & Wilcox have added a meat department in their grocery store at Macon, Ga.

William Sheen, a butcher at 1072 Madison avenue, Paterson, N. J., has made an assignment for the benefit of his creditors.

Seaman & Drake will engage in the meat business at Warehouse Point, Conn.

E. W. Bissonette has purchased the meat market of D. Mollison at Charlotte, Vt.

F. Smith has sold out his meat market at Mt. Carmel, Ill., to John Degan.

H. W. Schmitt has sold his meat market at Newell, Ia., to H. Kleis.

Ray Melvin has purchased the Hugo Ewaldt meat market at Hartley, Ia.

N. J. Ullrick has sold his meat shop at Mapleton, Ia., to Graff Brothers.

F. J. Muck & Son will open shortly their new meat market at Negaunee, Mich.

E. Davis will open a meat market at Chillicothe, O.

J. Eisenhart has sold his meat market at Danville, Pa., to S. Detwiler.

W. H. Brady will engage in the meat business at Creston, Ia.

H. S. Parker will engage in the meat business at Jefferson City, Mo.

F. Mewhinney has sold his meat market at Williamsburg, Kan.

P. Janss has purchased the Walnut Street Market at Atlantic, Ia.

Howard & Heckensmith have engaged in the meat business at Abilene, Kas.

W. B. Jackson has opened a new butcher shop at Latham, Kas.

Dan W. Patton has disposed of the Quality Meat Market at Poteau, Okla., to Baer & Erricson.

Frank Hanks, of Corning, Kas., has engaged in the meat business in Powhattan, Kas.

Wallace & Becker have purchased the City Meat Market at Macksville, Kas., from Cleve Carter.

F. J. Gaume has disposed of the City Meat Market at Goff, Kas., to William Hawley.

F. A. Knitner, of Cripple Creek, Colo., has purchased the McKnight meat market at 410 Dewey avenue, Bartlesville, Okla.

John Harwood has moved his meat business into a new building at Smith Center, Kas.

Walt Macey has taken possession of the butcher shop he recently purchased at Woodston, Kas.

W. W. Reed, who was recently burned out at Scott City, Kas., has again opened for business.

Jordan & Brady have purchased the meat department of the Perry Store at Perry, Ia.

Peterson & Peterson have purchased the meat market of Frank Kostka, Neligh, Neb.

Max Westphalen has disposed of his Walnut street shop at Atlantic, Ia., to Peter Janss.

N. B. Nelson has engaged in the meat and grocery business at Nodaway, Ia.

Put that fire out instantly with the J-M FYRO FIRE EXTINGUISHER

There is a feeling of absolute security in the building equipped with this wonderful little fire fighter.

The "J-M Fyro" instantly extinguishes fires—before they have a chance to get big. J-M Fyro Fluid is a liquid gas ten times as effective as the fluid in ordinary "chemical" extinguishers. Puts out gasoline, oil, and carbide fires. Will not injure the most delicate fabric.

Operates with compressed air. No pumping; no caps to unscrew; no delays of any kind. Simply turn the wheel and "J-M Fyro" does the rest.

Holds the record for putting out a larger percentage of fires than any other extinguisher.

Write nearest Branch for Booklet.

H.W. JOHNS-MANVILLE CO.

Albany	Chicago	Detroit	Louisville	New York	San Francisco
Baltimore	Cincinnati	Indianapolis	Milwaukee	Omaha	Seattle
Boston	Cleveland	Kansas City	Minneapolis	Philadelphia	St. Louis
Buffalo	Dallas	Los Angeles	New Orleans	Pittsburgh	Syracuse

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Renick & Tiefenthal have engaged in the meat business at Allegan, Mich.

A. J. Young has closed out his meat business at Ravenna, Mich., and retired.

H. A. Sponnoble has purchased the meat business of L. N. Roussin on First street, Manistee, Mich.

G. L. Lutz has engaged in the meat business on South Union street, Traverse City, Mich.

John M. Cahill has engaged in the meat business at Pentwater, Mich.

Dempsey & Van Beek have purchased the meat business of Van Allsburg & Leicht at Hart, Mich.

Daggett & Harwood have engaged in the meat business at Pentwater, Mich.

A. P. Wheeler has purchased a half interest in the meat market of H. A. Wilder at Conneaut, Wash.

McDonald & Hall are engaging in the meat business at Auburn, Wash.

A. W. Sauer, of Sumner, is engaging in the meat business at Moelips, Wash.

W. G. Lettermaier, of Southwick, has purchased the meat market of Al Von Clive at Gifford, Idaho.

N. B. Nelson has engaged in the meat and grocery business at Nodaway, Ia.

N. P. Mathisen has opened a new meat market at Elwood, Neb.

W. T. Miller has purchased the Smelkal meat market at Valley, Neb.

Roy May has sold out his meat market at Marquette, Mich., to O. Ryan.

J. & W. E. McDonald have purchased the Shellberg meat market at Craig, Neb.

Adolph Thiem is about to open a new butcher shop at Norfolk, Neb.

B. Edwards has established himself in the meat business at Hubbell, Neb.

A LAW TO LIMIT CREDIT.

We do not think much of the proposed bill which would place a fine upon a merchant for extending credit over thirty days, says the Wichita Price Current. We have been advocating merchants doing a cash business

wherever possible, but we do not believe it would be just to pass a law compelling the merchant to confine his credit business to thirty days or any specified time. In fact, we think the extending of credit is the merchants' own private business and a law telling the merchant what to do with his money is entirely out of place.

The argument put forth in favor of this bill is that it would protect the merchant's creditors. The man who framed this bill evidently thought all merchants were in debt. The merchant who extends credit is making an investment and is taking a chance to lose the same as a man who invests in a piece of property, and if he loses, it is strictly his own business. It is a fact that many merchants, jobbers and manufacturers are very careless in the extending of credit, and it is the cause of many failures, but the remedy should come through the ones extending credit and not the law.

HANDLING CUT MEATS CLEANLY.

When you've sliced your ½ pound boiled ham don't grab it, says a writer in the Merchants' Journal. It's a clumsy looking act. It affects the appetite and reflects on your sense of nicety no matter how clean your hands may be. Slip the knife under the meat and land it on the paper.

Where the platter system is in force the salesman should invariably show his steaks (if they want to be held up) in finger and thumb with the scale paper in the left hand. Where neatness is not enforced the clerk will spread the steak out on both hands. This is all wrong. And dear knows how many sensitive people such crude work has driven from the store.

Brightwood

GERMAN FRANKFURTS
NONE BETTER MADE
SPRINGFIELD PROVISION CO., Brightwood, Mass.

New York Section

"A turkey! A turkey! My kingdom for a turkey!" was the way it went in New York on Wednesday.

Chief Inspector Isaac Stiefel of the S. & S. small stock department in New York was in Chicago this week on a business trip.

Swift & Company's sales of fresh beef in New York City for the week ending November 22, 1913, averaged 11.42 cents per pound.

General Eastern Manager Charles J. Higgins of Morris & Company went to Providence, R. I., on Wednesday evening with his family to spend the Thanksgiving holiday.

General Manager G. J. Edwards, of Swift & Company's New York territory, returned Tuesday from a trip to Chicago, where he went to attend the funeral of his mother, who died on Friday of last week at the home of her son, W. B. Edwards, in Chicago.

John B. Stormouth, a big New Zealand sheep raiser who was in New York this week, made the statement that after the Panama Canal is opened New Zealand lamb can be landed in New York and sold at 5 cents a pound profit. Mr. Stormouth escaped from the country before his statement became generally known among the butchers! Canterbury, New Zealand, is his address, if anybody wants to write him.

The following is a report of the number of pounds of meat, fish, poultry and game seized and destroyed in the city of New York during the week ending November 22, 1913, by the New York City Department of Health: Meat.—Manhattan, 9,861 lbs.; Brooklyn, 30,147 lbs.; total, 40,008 lbs. Fish.—Manhattan, 19,800 lbs.; Brooklyn, 155 lbs.; total, 19,955 lbs. Poultry and game.—Manhattan, 7,695 lbs.; Brooklyn, 17 lbs.; total, 7,712 lbs.

Eighteen years on Amsterdam avenue, and never a poor piece of meat to be found in the shop, is the proud boast of "Eagle-Eye" Tom Miller at No. 648. And that is some record in a neighborhood where conditions are constantly changing. Mr. Miller is of the old school, and his meats are cut with geometrical precision, and his business is conducted on a system planned by himself. That's why he has remained on Amsterdam avenue for 18 years, and expects to remain 18 years longer.

management of the Jersey City plant of Swift & Company gave a dinner to the meat heads of the plant at the Down-Club in Jersey City last Wednesday. Manager W. A. Johns officiated as master, and threatened to infringe on the monopoly heretofore held in that direction by W. H. Noyes. Special guests on this occasion were Mr. Noyes, General Manager Edwards and T. C. Sullivan. The list of speakers included Messrs. Noyes, Johns, Edwards, Sullivan, P. D. Manchec, Superintendent John Boyle and Dr. Dodd.

Louis Frank, Nos. 184-86 Eighth avenue, is one of the first butchers in his neighborhood to start the movement that has been so much talked of recently in reference to 10 o'clock closing on Saturday nights. In addition to this he will keep closed all day Thanksgiving, Christmas and New Year's

days. With this good example, it should not be long before other butchers follow suit, as it is a consummation to be devoutly wished for by thousands of men in the business. Mr. Frank has prominent signs in his windows and store notifying his customers of the new rules. It is surely most commendable of him to be willing to be a pioneer in this important matter.

One of the new firms of wholesale meat dealers in West Washington Market is Meyer Kornblum & Company, at Nos. 33 to 41 Grace avenue. Mr. Kornblum formerly conducted a chain of retail shops, but preferred the wholesale business. He is still doing business at retail in his first shop on Ninth avenue, having sold all the others. He has been very successful in his new venture, handling lately a great deal of Argentine beef of the best quality, besides many cars of beef from the Cincinnati Abattoir Company. Mr. Kornblum is one of the few retail butchers who is competent to jump into the wholesale meat business from a retail business and make it pay. His many friends in the trade have rallied to his support and his business is booming.

Among the many prosperous shops on Amsterdam avenue, none is in a more flourishing condition than that of the A. Falk Company at No. 633. Mr. Falk caters to a class of trade who want the best and are willing to pay for it, with the result that he handles the very best kinds of meats that he can buy. He is what is called a persistent plugger—opens up himself in the morning, is behind the bench all day, doing most of the cutting and shipping of orders, while the bookkeeping and cashier's departments are ably looked after by his son, Amos Falk, an eighteen-year old high school graduate who is an expert accountant despite his youth. And he does not let business interfere with completing his education, as he is attending evening high school and to his other accomplishments is adding a course of stenography and typewriting. He comes from a family of expert butchers and judges of meat, both alive and dressed, and at the proper time will take his place at the block under the watchful eye of Papa Falk. Nor could he have a better instructor, in the skillful cutting of meat and all that goes with it.

AN EXTRAORDINARY TURKEY MARKET.

The turkey situation in New York the day before Thanksgiving was the most extraordinary in the history of the local trade. The old-time commission merchants and independent dealers, who in former years were in the habit of handling tons upon tons of turkeys, were absolutely cleaned out on Wednesday, it being impossible for the retailer to find even a single barrel of a good mark, and in very many instances the shopkeepers could not even begin to fill their orders.

The unusually warm weather was probably the chief reason for this unprecedented state of affairs, which may never again occur. The few turkeys that were sold brought unheard-of prices. Some of them, which in former years would have been considered as No. 2s, brought from 28c. to 33c. per pound.

The late season permitted turkeys to run afield longer than usual, which prevented their taking on weight before killing-time arrived. The very warm days of last week came just as the dressed stock was being

loaded or was en route to market. The result was that whole carloads of turkeys were "struck," and arrived at market in a condition which caused their seizure and condemnation. One receiver in New York alone lost three carloads through that cause. It was no wonder that turkeys were almost impossible to secure, at any price.

PLANS OF REFRIGERATOR CARS.

(Continued from page 24.)

and resist the cold at a low degree of temperature in the winter.

Second: Ice tank capacity sufficient to provide adequate circulation of the cold air necessary for quickly cooling the contents of the car.

The more important of these principles of refrigeration is the insulation. The selection of insulating materials and the method of their application depend chiefly upon their insulating power. The insulating power of any material is its capacity to resist heat; or, in other words, the heat conducting or transmitting power; and this is a quantity of heat expressed by the number of British thermal heat units (B. T. U.) which will pass through a square foot of insulating material of a given thickness in one hour, or for 24 hours for a difference in temperature of 1° Fahrenheit; or for a certain difference in temperature on each side of the insulating material. In addition to the non-conducting qualities, a good insulation must be clean, non-odorous and non-decayable; it must resist every kind of decomposition, and have the greatest possible strength and durability together with properties making it easy to apply.

Besides heat, water and moisture are two elements that enter into the selection of insulation. It is well known that one of the main essentials of economical insulation is dry insulation. Water is a good conductor of heat, and it is absolutely essential that the insulation be entirely and permanently waterproof. "Waterproof" does not mean merely resisting the entrance of water, but preventing its entrance. Perfect insulation is practically an impossibility (as previously stated), but these points referring to the physical laws governing the transmission of heat must be given the fullest consideration in the selection of the insulating materials to be used.

A refrigerator car being a movable object, it must resist all the rapid changes in weather and climate, and variations in temperature ranging from 40° below zero to 120° in the shade. One day it may be among the mountains with their cold climate, and the next day on the hot plains or in the torrid sections of the Southern States. Whatever the outside temperature may be, the temperature inside must be maintained at the degree most suitable for the various kinds of goods it

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NO MEATS BUT EVERYTHING GROCERIES IN LIQUORS DRY GOODS.

contains. The temperatures best suited to different goods vary very greatly.

What constitutes adequate insulation is a question upon which a wide diversity of opinion exists among many refrigerator engineers. It is assumed to be the accepted practice in cold storage construction that the walls of the building be so heat proof as to keep from the interior all heat in excess of 2 B. T. U.'s, per 24 hours per degree of difference between the outside and inside temperature. Assuming that the heat leakage in the modern cold storage plant averages 2 B. T. U.'s, then the type of wall with material and character of insulation as applied to new and improved refrigerator cars as herein described, meets the necessary conditions surrounding that of a cold storage plant.

In determining the number of heat units of transmission through the wall consisting of a number of layers of insulation, the insulating power, or heat leakage, etc., can be readily calculated if the heat leakage, or conducting power and thickness of each of the individual constituents of such insulators are known. The heat leakage of the wall of a car insulated with four courses of $\frac{1}{2}$ -inch hair felt (or linofelt) with the necessary waterproof paper and linings, theoretically averages about 4.35 B. T. U.'s per hour per square foot of surface for a difference in temperature of 52°. This difference in temperature has been based upon the exterior temperature of 90° and the interior temperature of the car at 38°. Reducing the heat leakage to a 1° difference in temperature between the inside and the outside would give approximately 2 B. T. U.'s for 24 hours per square foot of surface.

The loss, however, due to the faulty construction and leakage through openings is not taken into account. These openings of necessity would materially increase the transmission of heat, but inasmuch as very little

data is obtainable whereby this quantity could be determined, for all practical purposes when the heat leakage through the walls has been reduced to the basis of comparison with the walls of a cold storage building, it would seem to be satisfactory. The loss through the openings such as side doors and ice covers can be greatly reduced by care in the construction of these parts and by the proper handling of them in service.

This description of refrigerator car conditions is purposely brought out in order to make known the comparison between cold storage buildings and the modern refrigerator car; and that the refrigerator car herein described does meet, practically, the conditions required. This does not, however, apply to the various refrigerator cars in use today of the older type, as it is quite evident that many of them do not meet this standard of insulation.

The first practical consideration being given to the thermal conductivity of the walls, the second most essential point is that the refrigerating capacity of the car must be great enough to replace the cold lost by transmission in the walls, ceiling and floor; also the amount of refrigeration required to keep the contents of the car cold and at a temperature best adapted to the various kinds of fruit, produce, etc. The amount of refrigeration depends upon a number of circumstances: the size and construction of the storage, the amount of, and frequency of the products, their specific heat, and the mean external temperature, as well as the perfection of the insulation, and various other conditions. Assuming that the maximum temperature of the outside averages 90° and the inside temperature of the car desired averages 38°, the range of temperature would be 52°; the exposed surface of the car being 1,600 sq. ft., the heat leakage at 4.35 B. T. U.'s per hour per square foot

for a difference of 52°, then the amount of refrigeration required to replace the cold lost by transmission through the walls would be approximately 1,100 pounds.

The amount of refrigeration required to replace the cold lost by transmission through the ceiling and walls being determined, it is necessary to calculate the amount of refrigeration required to cool the products in the car. Assuming that the specific heat of the different kinds of products is about .8 units, then the amount of additional refrigeration required to reduce the temperature of the products to that of the temperature of the car is equivalent to 4.39 tons (or 8,780 pounds), based upon a load of 30,000 pounds.

In the refrigerator cars now in service there are many ice tanks, patented and otherwise, aiming to assist the circulation of the air in contact with the ice. The amount of refrigeration required for the total number of cubic feet of storage is a point that has never been given the consideration that is absolutely essential for the proper cooling of the car and its contents. In many instances, refrigerator cars have ice tank capacity of only 5,000 pounds; quite a number of 10,000 pounds; and very few have been built with a capacity running as high as 12,000 pounds. Some refrigerator cars have been built with an air space entirely around the ice body which largely increases the radiation, and, therefore, the circulation.

In arriving at the quantity of ice necessary to transport most of the perishable products, the question of salting was not taken into consideration. It is well known that with the use of from 5 to 20 per cent. of salt, a much lower temperature can be produced than the ice alone will give; and in the transportation of dressed poultry and fish, it is almost necessary to use a percentage of salt to secure a sufficiently low temperature to insure safe transportation.

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Poor to fair native steers.....	5.50@7.50
Oxen and stags.....	4.00@7.00
Bulls and dry cows.....	3.00@6.85
Good to choice native steers one year ago.....	8.00@9.40

LIVE CALVES.

Live veal, com. to good, per 100 lbs.....	8.00@12.50
Live calves, Western, per 100 lbs.....	@ 7.75
Live calves, grassers.....	5.00@ 5.50
Live veal calves, yearlings, per 100 lbs.....	4.00@ 5.00
Live veal calves, culls.....	7.00@ 7.50

LIVE SHEEP AND LAMBS.

Live lambs, medium to good.....	7.25@ 8.00
Live lambs, culls.....	@ 5.50
Live sheep, fair to good.....	3.25@ 4.00
Live sheep, culls and bucks, per 100 lbs..	@ 2.50

LIVE HOGS.

Hogs, heavy.....	@ 8.25
Hogs, medium.....	@ 8.50
Hogs, 140 lbs.....	@ 8.60
Pigs.....	@ 8.15
Rough.....	7.15@7.80

DRESSED BEEF.

CITY DRESSED.

Choice, native heavy.....	13½@14
Choice, native light.....	13½@13½
Native, common to fair.....	12 @13

WESTERN DRESSED BEEF.

Choice native heavy.....	@13
Choice native light.....	@13
Native, common to fair.....	12½@13
Choice Western, heavy.....	@12½
Choice Western, light.....	11 @12
Common to fair Texas.....	10 @11
Good to choice heifers.....	@12½
Common to fair heifers.....	11 @12
Choice cows.....	10 @11
Common to fair cows.....	@10½
Fleshy Bologna bulls.....	@10

BEEF CUTS.

	Western.	City.
No. 1 ribs.....	14½@15½	16½@17
No. 2 ribs.....	13 @14	15 @16
No. 3 ribs.....	10 @11	14 @15
No. 1 loins.....	14½@15½	@17
No. 2 loins.....	13 @14	@16
No. 3 loins.....	10 @11	@15
No. 1 hinds and ribs.....	@15	15 @15½
No. 2 hinds and ribs.....	@14	13½@14½
No. 3 hinds and ribs.....	@13	11 @12
No. 1 rounds.....	11½@12½	12 @13
No. 2 rounds.....	10½@11½	11½@12
No. 3 rounds.....	9½@10½	10½@11½
No. 1 chuck.....	11 @12	@13
No. 2 chuck.....	9½@10½	@12½
No. 3 chuck.....	8½@9½	@12

DRESSED CALVES.

Veals, city dressed, good to prime, per lb..	@18
Veals, country dressed, per lb.....	@16
Western calves, choice.....	@15
Western calves, fair to good.....	12 @14
Western calves, common.....	10 @11
Grassers and buttermilks.....	@10

DRESSED HOGS.

Hogs, heavy.....	@10½
Hogs, 180 lbs.....	@10½
Hogs, 160 lbs.....	@11½
Hogs, 140 lbs.....	@11½
Pigs.....	@11½

DRESSED SHEEP AND LAMBS.

Spring lambs, choice, per lb.....	@13
Lambs, good.....	@12
Lambs, medium to good.....	@10
Sheep, choice.....	@ 9
Sheep, medium to good.....	@ 8½
Sheep, culls.....	6 @ 7

PROVISIONS.

(Jobbing Trade.)

Smoked hams, 10 lbs. avg.....	@17
Smoked hams, 12 to 14 lbs. avg.....	@16½
Smoked hams, 14 to 16 lbs. avg.....	@16½
Smoked picnic, light.....	@14½
Smoked picnic, heavy.....	@14
Smoked shoulders.....	@13

Smoked bacon, boneless.....	@18
Smoked bacon (rib in).....	@16½
Dried beef sets.....	@30
Smoked beef tongue, per lb.....	@18
Pickled bellies, heavy.....	@15

FRESH PORK CUTS.

Fresh pork loins, city.....	14½@17½
Fresh pork loins, Western.....	13½@16½
Fresh pork tenderloins.....	@32
Frozen pork tenderloins.....	@31
Shoulders, city.....	@13½
Shoulders, Western.....	12½@13
Butts, regular.....	@15½
Butts, boneless.....	@17½
Fresh hams, city.....	@16½
Fresh hams, Western.....	@15½
Fresh picnic hams.....	@12½

BONES, HOOF AND HORNS.

Round shin bones, avg. 48 to 50 lbs. per 100 pcs.....	\$95.00@100.00
Flat shin bones, avg. 40 to 45 lbs. per 100 pcs.....	80.00@ 85.00
Black hoofs, per ton.....	40.00@ 45.00
Striped hoofs, per ton.....	50.00@ 55.00
White hoofs, per ton.....	95.00@ 97.50
Thigh bones, avg. 85 to 90 lbs. per 100 pcs.....	90.00@100.00
Horns, avg. 7½ oz. and over.....	280.00@285.00

BUTCHERS' SUNDRIES.

Fresh steer tongues.....	@14½c. a pound
Fresh cow tongues.....	12½@13c. a pound
Calves' heads, scalded.....	.45 @50c. a piece
Sweetbreads, veal.....	.45 @90c. a pair
Sweetbreads, beef.....	.25 @30c. a pound
Calves' livers.....	@25c. a pound
Beef kidneys.....	@15c. a piece
Mutton kidneys.....	@ 8c. a piece
Livers, beef.....	8½@10c. a pound
Oxtails.....	8 @ 9c. a piece
Hearts, beef.....	@ 6c. a pound
Rolls, beef.....	@27c. a pound
Tenderloin, beef, Western.....	.20 @35c. a pound
Lamb's' fries.....	8 @ 8½c. a pair
Extra lean pork trimmings.....	.15½@16c. a pound
Blade meat.....	@12½c. a pound

BUTCHERS' FAT.

Ordinary shop fat.....	@ 2½
Suet, fresh and heavy.....	@ 6
Shop bones, per cwt.....	.25 @35

SAUSAGE CASINGS.

Sheep, imp., wide, per bundle.....	@80
Sheep, imp., medium, per bundle.....	@60
Sheep, imp., per bundle.....	@50
Sheep, domestic, wide, per bundle.....	@70
Sheep, domestic, medium, per bundle.....	@50
Sheep, domestic, narrow med., per bundle.....	@25
Hog, American, free of salt, tcs. or bbls., per lb., f. o. s. New York.....	@70
Hog, extra narrow selected, per lb.....	@70
Hog, middles.....	@11
Beef rounds, domestic, per set, f. o. b. Chicago.....	@18
Beef rounds, export, per set, f. o. b. New York.....	@25
Beef bungs, piece, f. o. b. New York.....	@20
Beef middles, per set, f. o. b. New York.....	@74
Beef middles, per set, f. o. b. Chicago.....	@71
Beef weasands, per 1,000, No. 1s.....	@ 7½
Beef weasands, per 1,000, No. 2s.....	@ 4

SPICES.

	Whole.	Ground.
Pepper, Sing., white.....	19	21
Pepper, Sing., black.....	12½	14½
Pepper, Penang, white.....	16½	18½
Pepper, red Zanzibar.....	12	15
Allspice.....	5½	7½
Cinnamon.....	16	20
Coriander.....	7	9
Cloves.....	17	20
Ginger.....	9	12
Mace.....	65	70

SALTPETRE.

Crude.....	4½@ 5
Refined—Granulated.....	@ 5½
Crystals.....	5½@ 7
Powdered.....	@ 8

GREEN CALFSKINS.

No. 1 skins.....	@ .26
No. 2 skins.....	@ .24
No. 3 skins.....	@ .14
Branded skins.....	@ .18
Ticky skins.....	@ .18
No. 1 B. M. skins.....	@ .24
No. 2 B. M. skins.....	@ .22
No. 1, 12½-14.....	@2.80
No. 2, 12½-14.....	@2.55
No. 1 B. M., 12½-14.....	@2.45
No. 2 B. M., 12½-14.....	@2.20
No. 1 kips, 14-18.....	@2.85
No. 2 kips, 14-18.....	@2.70
No. 1 B. M. kips.....	@2.20
No. 2 B. M. kips.....	@2.10
No. 1, heavy kips, 18 and over.....	@3.70
No. 2, heavy kips, 18 and over.....	@3.45
Branded kips.....	@1.90
Heavy branded kips.....	@2.25
Ticky kips.....	@2.15
Heavy ticky kips.....	@2.50

DRESSED POULTRY.

FRESH KILLED.

Turkeys—Dry-picked—	
Md., Delaware and Jersey fancy.....	@30
Md., Delaware and Jersey, poor to fair.....	@22
Virginia, selected.....	@28
Virginia, poor to fair.....	@18
State and Penn., selected fancy.....	@28
Western, small boxes, dry-pick., selected fancy.....	@26
Western, bbls., dry-pick., selected fancy.....	@26
Western, bbls., dry-pick., avg. best.....	@22
Western, bbls., scalded, selected fancy.....	@24
Ohio and Michigan, bbls., scalded, selected fancy.....	@24
Turkeys, poor.....	@15
Chickens—	
Dry packed.....	@16
Broilers, in bbls., fancy.....	@22
Roasting.....	@25
Fowl—Dry packed, 12 to box—	
Western boxes, 48 to 55 lbs. to doz., dry-picked, fancy.....	@17
Western boxes, 36 to 42 lbs. to doz., dry-picked.....	@14
Fowl—Ficed, bbls.—	
Western, dry-picked, 4 to 5 lbs.....	@17
Southern and S. Western, dry-picked.....	@14
Other Poultry—	
Old Cocks, per lb.....	@12½
Squabs, prime, white, 10 lbs. to doz., per doz.....	@4.75

LIVE POULTRY.

Chickens, fancy, nearby, per lb.....	15½@16
Chickens, poor, via express.....	14½@15
Chickens, Western, per lb., aver. fine.....	@15½
Chickens, per lb., Southern.....	@15½
Fowls, via freight, average, fine.....	@15
Fowls, via express.....	@16
Old Roosters, per lb.....	@10½
Turkeys, hens and toms, mixed.....	@22
Ducks, other nearby, spring.....	@17
Ducks, West. and So., per lb.....	@16
Geese, per lb., Western.....	@14
Guineas, per pair.....	@65
Pigeons, per pair.....	@20

BUTTER.

Creamery, Extras.....	.33 @35
Creamery, Firsts.....	.28 @32
Process, Extras.....	.25½@26½
Process, Firsts.....	.24 @25

EGGS.

Fresh gathered, extras.....	.46 @48
Fresh gathered, extra firsts.....	.44 @45
Fresh gathered, firsts.....	.42 @43
Fresh gathered, seconds.....	.38 @41

FERTILIZER MARKETS.

BASIS, NEW YORK DELIVERY.

Bone meal, steamed, per ton.....	\$20.00 @20.50
Bone meal, raw, per ton.....	28.00 @29.00
Hoof meal, per unit, Chicago.....	@ 2.85
Dried blood, West, high grade, fine, f. o. b. Chicago, prompt.....	@ 3.15
Nitrate of soda—spot.....	2.20 @ 2.25
Bone black, discard, sugar house del. New York.....	25.00 @26.00
Dried tankage, N. Y., 11 to 12 per cent. ammonia, f. o. b. New York.....	3.20 and 10c.
Tankage, 11 and 15 p. c., f. o. b. Chicago, prompt.....	3.10 and 10c.
Garbage tankage, f. o. b. New York.....	7.00 @ 7.50
Fish scrap, dried, 11 p. c. ammonia and 15 p. c. bone phosphate, delivered, New York (nominal).....	8.55 and 10c.
Foreign fish guano, testing 13@14% ammonia and about 10% B. Phos. Lime, c. l. f. Charleston and New York News.....	3.60 and 10c.
Wet, acidulated, 7 p. c. ammonia per ton, f. o. b. factory (35c. per unit available phos. acid).....	nominal
Sulphate ammonia gas, for shipment, per 100 lbs., guar., 25%.....	3.10 @ 3.15
Sulphate ammonia gas, per 100 lbs., spot, guar., 25%.....	3.10 @ 3.15
So. Carolina phosphate rock, ground, per 2,000 lbs., f. o. b. Charleston.....	6.50 @ 7.70
So. Carolina phosphate rock, undried, f. o. b. Ashley River, per 2,240 lbs.....	3.50 @ 3.75
The same, dried.....	3.75 @ 4.00

